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ABSTRACT

It is difficult to compare the United States and European Community (EC) agricultural sectors for several reasons. For one thing, the European community is an economic association of 12 independent nations, each of which has its own national methods of data collection and statistical presentation. The problem of comparing the two sectors is further complicated by differences in measurement techniques and the limited availability of data for certain years and locations. Agriculture in the EC involves more people than agriculture in the United States. U.S. farms are larger and fewer than EC farms (9.8 million farms averaging 42 acres each in the EC versus 2.3 million U.S. farms averaging 438 acres each). EC agriculture contributes a larger share of gross domestic product (GDP) than in the United States, but the U.S. per capita contribution to GDP of those employed in agriculture is larger. Incomes in agriculture have decreased and become more variable in both sectors, and in both areas agriculture's contribution to GDP has not grown as fast as the general economy. The EC has just passed the United States as the world's largest agricultural exporter, and it is also a market for one-fourth of the United States' agricultural exports. The costs of supporting agriculture prices and agriculture stocks have risen rapidly in both areas, thereby leading to pressure to examine policy reforms on both sides of the Atlantic. (MN)

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United States
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Economic
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**Agriculture and
Trade Analysis
Division**

A Comparison of Agriculture in the United States and the European Community

Mark Newman
Tom Fulton
Lewrene Glaser

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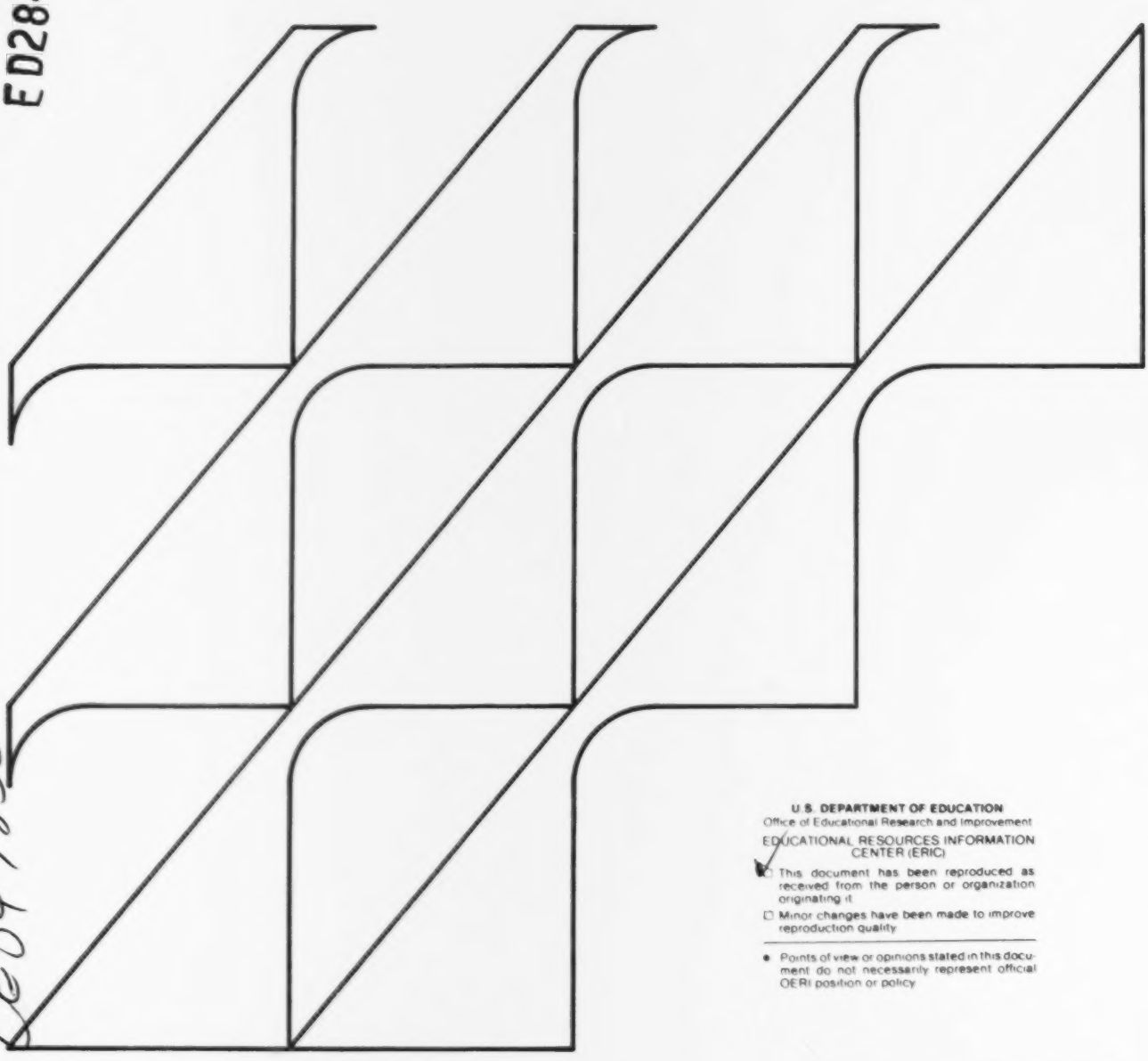

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A COMPARISON OF AGRICULTURE IN THE UNITED STATES AND THE EUROPEAN COMMUNITY. By Mark Newman, Tom Fulton, and Lewrene Glaser. Agriculture and Trade Analysis Division, Economic Research Service, U.S. Department of Agriculture. ERS Staff Report No. AGES870521.

ABSTRACT

The United States and the European Community are major competitors in international agricultural markets, major trading partners, and important allies. This report identifies and analyzes similarities and differences in U.S. and EC agriculture, including trade and domestic farm policies. Agriculture accounts for a larger share of employment and national income in the European Community than in the United States. The enlarged EC has just passed the United States as the world's largest agricultural exporter. The EC is also a market for one-fourth of U.S. agricultural exports. Costs of supporting agricultural prices and agricultural stocks have rapidly grown in both regions, leading to pressure to examine policy reforms.

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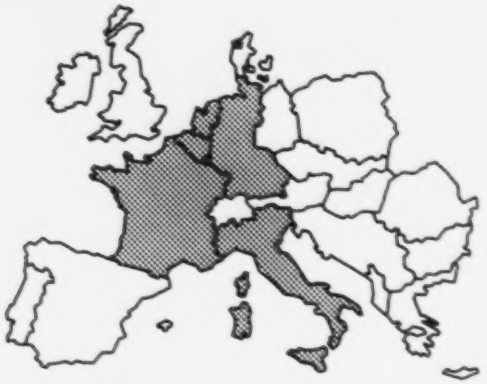
June 1987

PREFACE

Meaningful comparisons of U.S. and European Community (EC) agricultural sectors are complicated by less than perfectly comparable data. The EC is an economic association of independent nations, each with national methods of data collection and statistical presentation. As the EC has grown from 6 member states to its current 12 (see accompanying figure), efforts to harmonize statistics have progressed. There are also differences in measurement concepts used in the EC and United States. Where direct comparisons were not possible, similar but different sources of information have been used. Choices of years for comparison are based on data availability, with maximum effort to avoid bias as a result of base year selection. Data presented in this comparison refer to the EC-10 unless otherwise indicated. Where data on Spain and Portugal are available, comparisons for the 12 current EC countries have been made in the text, even when it is not possible to put accompanying tables and graphs on an EC-12 basis.

Growth of the European Community

EC-6



1957
- Belgium
- Federal Republic of Germany
- France
- Italy
- Luxembourg
- Netherlands

EC-9

1973
- Denmark
- Ireland
- United Kingdom

EC-10

1981
- Greece

EC-12

1986
- Portugal
- Spain

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SOURCE NOTES

Initials used to indicate chart and table data sources are:

CEA = U.S. Council of Economic Advisors.
EC = European Community.
UN = United Nations.
USDA = U.S. Department of Agriculture.
USDC = U.S. Department of Commerce.

SUMMARY

EC agriculture involves more people than U.S. agriculture and a larger share of total civilian employment. EC agriculture also contributes a larger share of gross domestic product (GDP) than in the United States, but the U.S. per capita contribution to GDP of those employed in agriculture is larger. Incomes in agriculture have been lower and more variable than those in the general economy on both sides of the Atlantic. Agriculture's contribution to GDP has not grown as fast as the general economy.

The Agricultural Sector

U.S. farms are larger and fewer than EC farms. U.S. farms average 438 acres, while the average EC farm is only 42 acres. Enlargement of the EC to 12 countries raised the number of farms to 9.8 million, compared with 6.8 million in the EC-10. There were about 2.3 million U.S. farms in 1984.

Dairy products, livestock products, and grains account for the bulk of EC agricultural production. Fruits and vegetables and oilseeds are becoming more important. EC enlargement to include more Mediterranean countries has increased the importance of fruits and vegetables in the production mix. While oilseed production remains small relative to use, high internal support prices have led to a fourfold increase in production in the last decade.

Beef and veal production is more important among U.S. livestock producers, while dairy is more important in the EC. Dual purpose dairy/beef animals are more common in the EC. Coarse grains make up a larger share of U.S. grain production, while wheat is more important in the EC. Feed use of wheat is increasing in the EC as well as on world markets.

Agricultural price support in the EC is paid for through high consumer prices as well as government payments to store surpluses and subsidize exports and processing. EC producers are protected from international competitors in EC markets by the variable levy, a system of import taxes that increase as the differences between world and EC prices increase.

U.S. income supports through deficiency payments mean that consumer prices are lower than would be necessary to assure target prices to producers through direct price supports.

U.S. consumers spend about 15 percent of their total household expenditures on food, beverages, and tobacco, while EC consumers spend about one-fourth of their total. Since food costs have been falling in the EC, there has been less consumer pressure to reduce farm-support prices than might otherwise be expected.

Agricultural Trade

The 12-member EC passed the United States as the world's largest agricultural exporter in 1986. EC-12 agricultural exports for 1986 were valued at more than $28 billion, compared with $26 billion in U.S. agricultural exports.

The value of U.S. and EC agricultural exports has tended to move in tandem over the past 15 years. However, the major drop in U.S. agricultural exports since 1981 has been accompanied by a recovery in EC exports since 1984. The falling value of the U.S. dollar makes the recovery less striking than when

viewed in terms of European Currency Units (ECUs). While $1 bought an average of 1.31 ECUs at its peak in 1985, the dollar fell to an average of $1 = 0.88 ECUs during the first quarter of 1987.

About one-fifth of U.S. agricultural production by value was exported in 1985, down from almost one-third in 1981. EC exports to countries outside the Community reached about 21 percent of production in 1985. In 1986, U.S. agricultural exports fell to only 15 percent of production.

The EC is a customs union, and most of its trade is within the Community. During the first half of the eighties, trade among the EC-10 remained stable at $45-46 billion annually. In 1985, 38 percent of EC agricultural production was traded across national borders within the EC. The current U.S. share of world agricultural markets is back to the early seventies' level of 17-18 percent, about the same as the current EC share. The EC-10 share of the world market (excluding intra-trade) was 10-11 percent in the early seventies; estimated EC-12 market share was 19 percent for 1986.

The EC, a major U.S. competitor, is also its most important agricultural export market. In 1986, the EC-12 purchased about one-fourth of all U.S. agricultural exports. Nine EC members were listed among the top 20 national markets for U.S. agricultural exports in 1986. Despite substantial declines, the EC remains an important market for oilseeds and products, grains and feeds, livestock products, fruits, nuts, vegetables and products, cotton, and tobacco.

The strong dollar contributed to steadily increasing U.S. imports of agricultural products from the EC. The U.S. agricultural trade surplus with the EC has fallen substantially from its peak of $7.5 billion in 1980.

Almost three-fourths of EC agricultural exports are made up of high-valued and value-added products. In contrast, such exports make up only one-third of U.S. agricultural exports, the largest share since the early seventies.

Since the Common Agricultural Policy (CAP) was established in the early sixties, the EC has shifted from a net importer of most agricultural commodities to a net exporter of grains, dairy products, sugar, and beef. U.S.-EC competition is especially strong in grain markets, where U.S. shares fell as EC exports increased.

Agricultural Programs and Policies

U.S. farm programs date from the thirties, while the CAP is 25 years old. In the face of changing agricultural production and markets, government program costs have skyrocketed, reaching $25.8 billion in the United States and about $22 billion in the EC in 1986. While expenditures were in the $12-13 billion range in both regions in 1982, U.S. outlays were much lower than those of the EC prior to that time.

U.S. farm policies provide price and income support to grain, cotton, and, to a limited extent, soybean producers. The primary mechanisms are nonrecourse loans and deficiency payments and production input control measures, such as acreage set-asides and paid land diversions. Direct government purchases support dairy prices. U.S. prices for sugar and dairy products are partly protected through border measures such as import quotas.

The Food Security Act of 1985 lays out price and income supports for grains, cotton, soybeans, peanuts, sugar, and milk. It also mandates a onetime program to reduce U.S. dairy herds through a voluntary buy-out program. A conservation reserve established under the act is targeted to remove up to 45 million acres of erodible land from production.

The EC's CAP is based on three central principles: (1) creation of a single community market, (2) an internal preference for community products, and (3) common financing of policy costs.

The basic mechanism used in EC commodity regimes involves high internal prices maintained through variable levies that increase as world prices fall relative to internal EC prices and export refunds that permit disposal of surpluses at world prices while producer prices remain high. The CAP was set up for a community that sought to increase food production and decrease dependence on imports. Under the protection of high internal prices, the EC has become much more than self-sufficient in grains, dairy products, beef, and sugar.

Support programs have led to huge stocks of grains and dairy products in both the United States and the EC. Stock accumulation and maintenance contribute to program costs and also overhang world markets, depressing prices.

In current negotiations under the General Agreement on Tariffs and Trade (GATT), one U.S. objective is to encourage liberalization of international trade. ERS analysis shows that there are no "free traders" among the world's agricultural trading countries. Analysis of protection of U.S. and EC agricultural producers during 1982-84 shows that overall protection of producers was higher in the EC, but that protection was also important in the United States.

A Comparison of Agriculture in the United States and the European Community

Mark Newman
Tom Fulton
Lewrene Glaser

INTRODUCTION

U.S. and EC policymakers are exploring options for protecting agricultural incomes while cutting costs of price and income supports. This report, comparing U.S.-EC agriculture, will help both sets of policymakers better understand trade issues arising between these major competitors, trading partners, and allies.

U.S. discussions currently center on "decoupling" price and income supports, leaving producers to respond to market price signals, but providing direct transfer payments to support income. Mandatory supply controls have also been proposed.

In proposing 1987/88 prices for agricultural products to the EC Council of Agricultural Ministers, the EC Commission stated, "...the aim is to increase farmers' awareness of market realities and ensure that their behavior is more closely related to the real scope for unsubsidized disposal of their products..." EC efforts at reducing support costs have led to reductions of dairy quotas, tightening of access to grain price support through the intervention system, price reductions, and shifting some support costs to producers. At the same time, discussions of policy alternatives include examining ways to limit support cost exposure and ways to expand revenues. Increased producer co-responsibility taxes on marketed grain production, land set-asides, early retirement incentives for older farmers, two-price systems, and marketing quotas have all been discussed.

A tax on vegetable oils has been proposed as a means to generate revenue. Such a tax could seriously hamper U.S. oilseed exports. In addition, recent proposals include increased funding for the Common Agricultural Policy (CAP) on the basis of an increase in the value-added tax and/or an increase in the base used to determine national contributions to the EC budget.

The importance of agricultural policy objectives varies among EC member nations, as well as between the United States and the EC. While support for maintenance of farmer incomes is consistently strong, the importance attached to use of markets to determine prices, limitation of budgetary expenditures, special treatment for low-income farmers, pursuit or maintenance of a positive trade balance, and avoidance of international tensions varies considerably among EC member nations.

THE AGRICULTURAL SECTOR

Agriculture contributes a larger share of gross domestic product (GDP) in the EC than in the United States (fig. 1 and table 1), although the per capita contribution of those employed in agriculture is larger in the United States.1/

The value of agriculture's contribution to total GDP has more than doubled since 1972 in both the United States and the EC. Since GDP has tripled in the same period, agriculture's share of GDP has fallen, reaching 2.5 percent of GDP in the United States and 3.3 percent in the EC in 1984. Over 1972-82, agriculture's share of GDP in the EC averaged 4 percent, compared with 2.9 percent in the United States.

The share of the total population employed in EC agriculture is more than double that of the United States, so the per capita contribution of those employed in agriculture is smaller in the EC.

1/ Where per-unit agricultural product prices are higher in one region than the other, and costs are similar, the per-unit contribution of production to GDP will also be higher. This factor alone limits the validity of comparisons. Exchange rate volatility further complicates comparisons of amounts of contributions to GDP in U.S. dollar terms.

Figure 1-Agriculture's contribution to gross domestic product

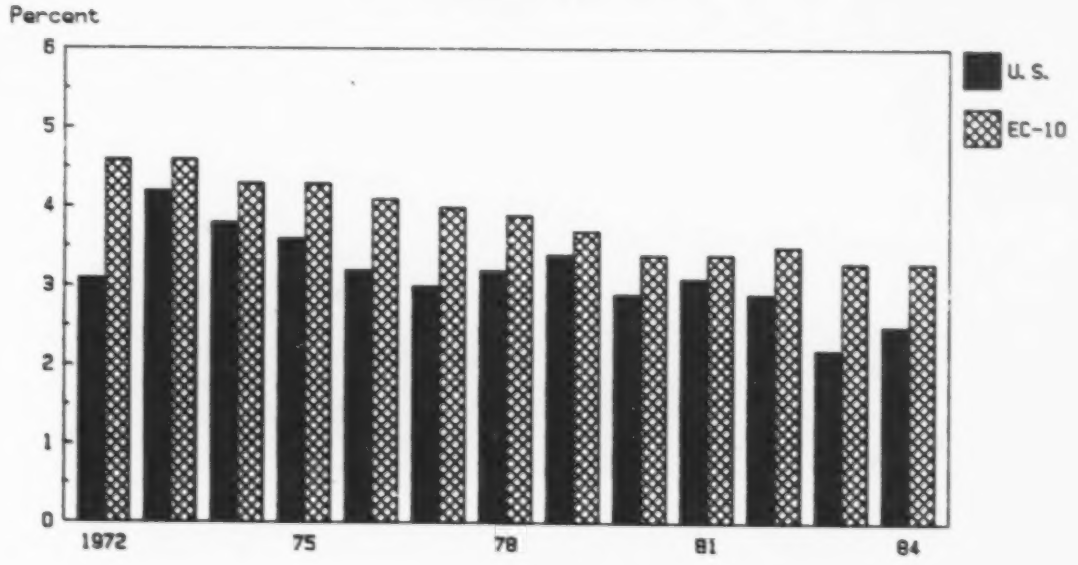


Table 1--Agriculture's contribution to gross domestic product 1/

Year	United States			EC-10		
	Agr. GDP	Total GDP	Agriculture's share of GDP	Agr. GVA 2/	Total GDP	Agriculture's share of GDP
	Billion dollars		Percent	Billion dollars		Percent
1972	37.4	1,201.6	3.1	39.9	862.0	4.6
1973	56.2	1,343.1	4.2	49.9	1,087.7	4.6
1974	55.0	1,453.3	3.8	51.8	1,197.0	4.3
1975	56.3	1,580.9	3.6	59.9	1,397.4	4.3
1976	55.7	1,761.7	3.2	59.8	1,443.9	4.1
1977	58.9	1,965.1	3.0	65.8	1,643.1	4.0
1978	70.1	2,219.1	3.2	79.9	2,036.5	3.9
1979	83.1	2,464.4	3.4	91.4	2,465.9	3.7
1980	77.2	2,684.4	2.9	97.3	2,822.1	3.4
1981	92.0	3,000.5	3.1	83.3	2,481.6	3.4
1982	89.6	3,114.8	2.9	82.2	2,373.7	3.5
1983	74.3	3,355.9	2.2	75.0	2,307.4	3.3
1984	94.0	3,717.5	2.5	71.4	2,190.4	3.3

1/ Agriculture includes fisheries and forestry.
2/ GVA = The value of agricultural production less factor cost.
Sources: CEA and EC.

Agricultural Employment and Income

EC agriculture involves more people than U.S. agriculture and a larger share of total civilian employment. Of the 320 million people in the countries comprising the current EC-12, 11 million were employed in agriculture in 1984, representing 8.9 percent of civilian employment.

Population in the 10 member countries of the EC prior to 1986 is also larger, 273 million compared with 235 million in the United States. Within the EC-10, agriculture fell from 18.4 percent of employment in 1960 to 7.2 percent in 1985 (fig. 2 and table 2). The percentage of the population employed in EC agriculture ranges from 2.7 percent in the United Kingdom to 28.5 percent in Greece. The share of U.S. agricultural employment has also fallen sharply, making up only 3 percent of civilian employment in 1985, down from 8.3 percent in 1960.

Incomes in agriculture have been lower and more variable than those in the general economy on both sides of the Atlantic. U.S. agriculture's contribution to GDP has not kept pace with growth in the general economy, especially since 1980 (fig. 3 and table 3).

Figure 2-Agricultural employment as a percentage of total civilian employment

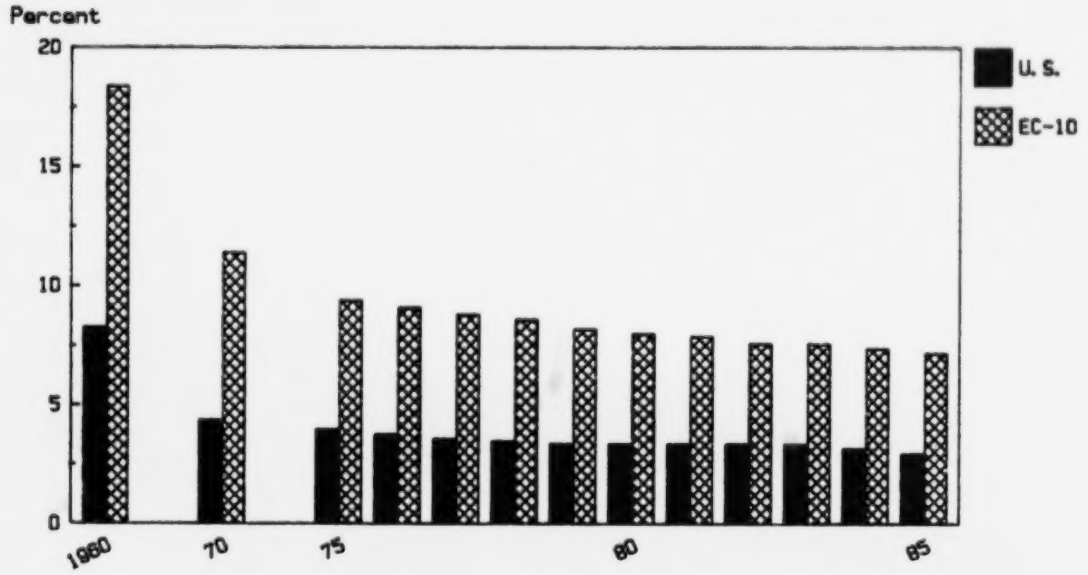


Table 2--Agricultural employment as a percentage of total civilian employment

Year	United States		EC-10	
	Million	Percent	Million	Percent
1960	5.46	8.3	18.89	18.4
1970	3.46	4.4	11.96	11.4
1975	3.41	4.0	9.87	9.4
1976	3.33	3.8	9.63	9.1
1977	3.28	3.6	9.32	8.8
1978	3.39	3.5	9.11	8.6
1979	3.35	3.4	8.87	8.2
1980	3.36	3.4	8.63	8.0
1981	3.37	3.4	8.41	7.9
1982	3.40	3.4	8.05	7.6
1983	3.38	3.4	8.03	7.6
1984	3.32	3.2	7.85	7.4
1985	3.18	3.0	7.67	7.2

Sources: CEA and EC.

Government has played a critical role in keeping U.S. farm incomes from falling even further behind the rest of the economy. Current forecasts are for the U.S. Government to provide almost half of the net cash income of crop farms in 1987 and to make the difference between loss and profit for many cash grain farmers.

Income per worker in EC agriculture has also failed to keep up with the general economy (fig. 4 and table 3). Preliminary estimates are that EC agricultural incomes recovered slightly in 1986 after falling to their lowest level since the midseventies in 1985.

Among EC crop producers, highest incomes have been going to specialized grain producers, whose incomes were as much as 65 percent above the average for all commercial farms in 1984/85. Incomes were also high among specialized horticultural producers. Among specialized EC livestock producers, poultry and pork producers have seen the highest incomes. Specialized EC dairy producers, accounting for 19 percent of total commercial holdings, have seen incomes fall in the last several years, but remain almost 20 percent above the average for all commercial farms in the EC-10.

While U.S. per-farm estimates are not available, realized net farm income of crop farmers has fallen from about two-thirds of the total for all farms in 1985 to slightly more than one-half. For cash grain farmers, the fall has been from about 20 percent of total realized net farm income to 12-13 percent.

Part-time farming is on the rise in both the United States and the EC. Off-farm income made up 57 percent of total income of U.S. farmers in 1985. West Germany has the largest percentage of part-time farmers, with 43 percent, according to recent EC data. France and Belgium follow at 38 and 32.6 percent.

Figure 3-U.S. income per worker in agriculture and the general economy

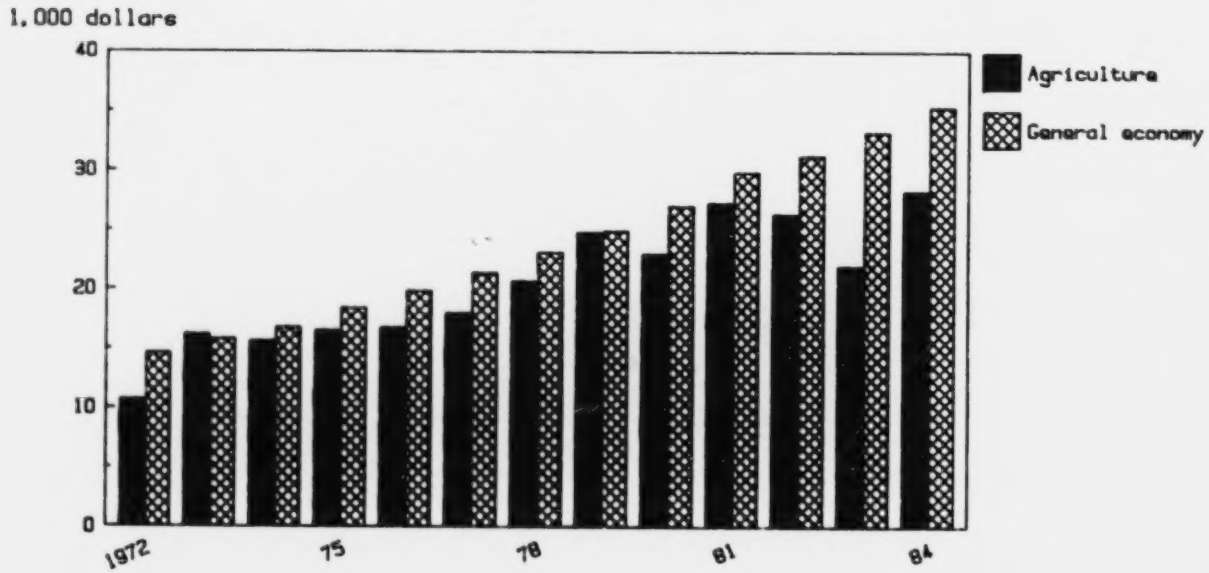


Figure 4-EC income per worker in agriculture and the general economy

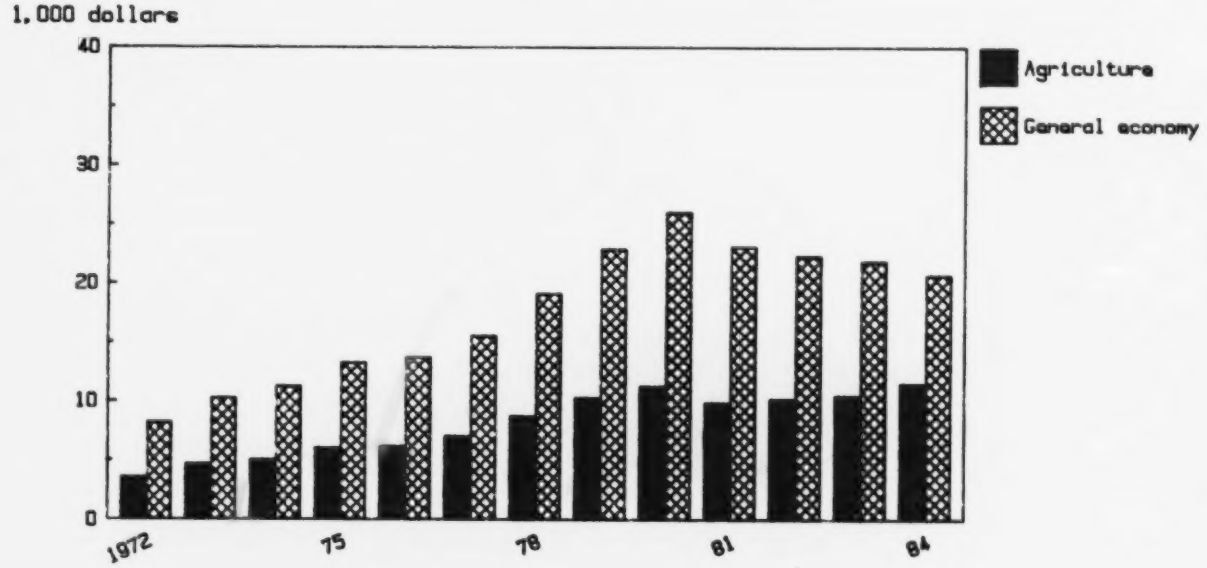


Table 3--Income per worker in agriculture and the general economy

Year	United States 1/		EC 2/	
	Agr.	General economy	Agr.	General economy
		1,000 dollars		
1972	10.7	14.6	3.6	8.2
1973	16.2	15.8	4.7	10.3
1974	15.6	16.8	5.1	11.3
1975	16.5	18.4	6.1	13.3
1976	16.7	19.9	6.2	13.7
1977	18.0	21.4	7.1	15.5
1978	20.7	23.1	8.8	19.1
1979	24.8	24.9	10.3	22.9
1980	23.0	27.0	11.3	26.1
1981	27.3	29.9	9.9	23.2
1982	26.4	31.3	10.2	22.4
1983	22.0	33.3	10.5	21.9
1984	28.3	35.4	11.5	20.8

1/ Agricultural GDP per person employed in agriculture and total GDP per civilian employee.

2/ Agricultural gross value added per person employed in agriculture and total GDP per civilian employee.

Sources: CEA and EC.

Agricultural Land, Farm Numbers, Size, and Productivity

The United States covers five times the physical area of the EC-10 and has four times the arable land. U.S. farms are larger and fewer than EC farms. Enlargement of the EC to 12 countries raised the number of farms to 9.8 million, compared with 6.8 million in the EC-10 (table 4). There were about 2.3 million U.S. farms in 1984.

Although enlargement to include Spain and Portugal reduced the average arable land per EC farm, average farm size among the EC-10 grew from 37.8 acres in

Table 4--Number of farms, average size, yield, and herd and flock size

Item	United States	EC-10
	Millions	
Number of farms, 1984	2.3	6.8
	Acres	
Average farm size, 1984	438	42
	Bushels per harvested acre	
Yield:		
Corn--		
1973	91.3	86.8
1985	118.0	106.9
Wheat--		
1973	31.6	60.1
1985	37.5	83.6
	Average herd/flock size (No.)	
Dairy--		
1973	23	11
1985	41	18
Pigs--		
1973	82	25
1985	134	58
Poultry--1/		
1978	1,471	229
1982	1,680	249

1/ Poultry inventory for the EC is for 1979 and 1983.

Sources: USDA and EC.

1974 to 42.3 acres in 1984. Average U.S. farm size was 438 acres in 1984, up from 429 acres in 1978.

Farm size varies considerably by region in both the United States and the EC. In the South and Middle Atlantic States, average farm size is under 175 acres, compared with a 2,067-acre average in the Mountain States. Farm size in the EC varies from an average of 13 acres in Greece to 173 acres in the United Kingdom.

While agriculture is generally more intensive in the EC, the United States leads in average dairy yields, while EC average wheat yields are more than double those of the United States.

Agricultural Production: Level and Composition

Livestock, grains, and oilseeds remain the foundation of U.S. agriculture. Fruits, vegetables, and nuts have become increasingly important in recent years. Dairy products have also been increasing their share of total U.S. agricultural production (fig. 5 and table 5).

Dairy, livestock products, and grains account for the bulk of EC agricultural production (fig. 6 and table 5). Enlargement to include more Mediterranean countries has increased the importance of fruits and vegetables in the production mix. While oilseed production remains small relative to use, high internal support prices have led to major production increases.

Beef and veal production are most important among U.S. livestock producers, while dairy is most important in the EC. Dual purpose dairy/beef animals are more common in the EC. Coarse grains make up a larger share of U.S. grain production, while wheat is more important in the EC. Feed use of wheat is increasing in the EC as well as on world markets.

Figure 5-U.S. composition of agricultural production

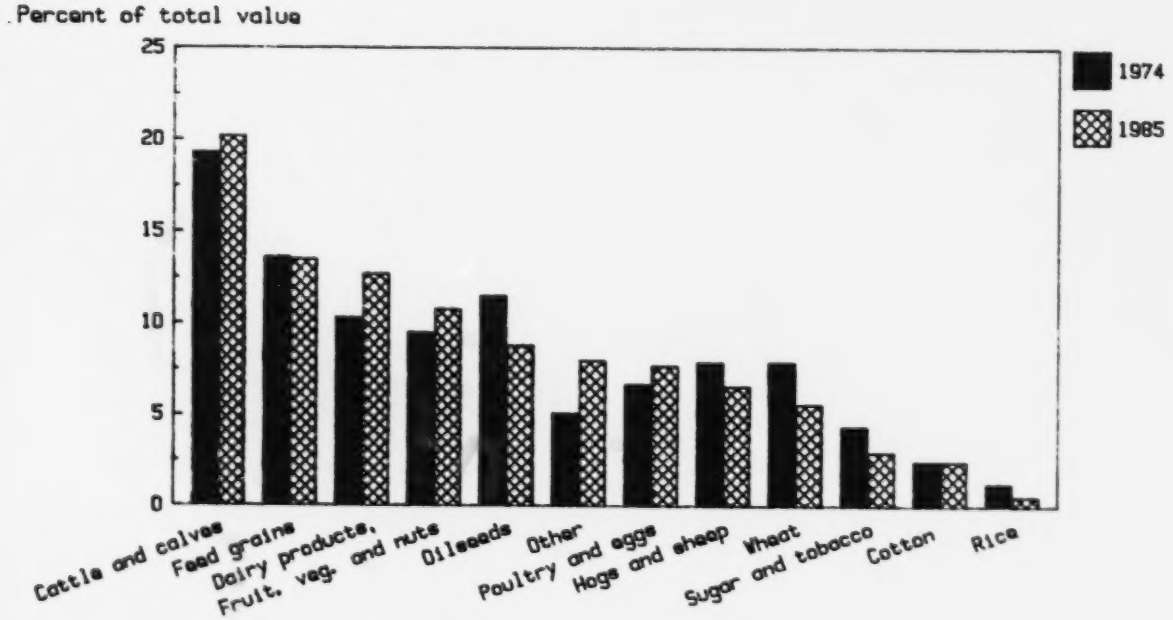


Figure 6-EC composition of agricultural production

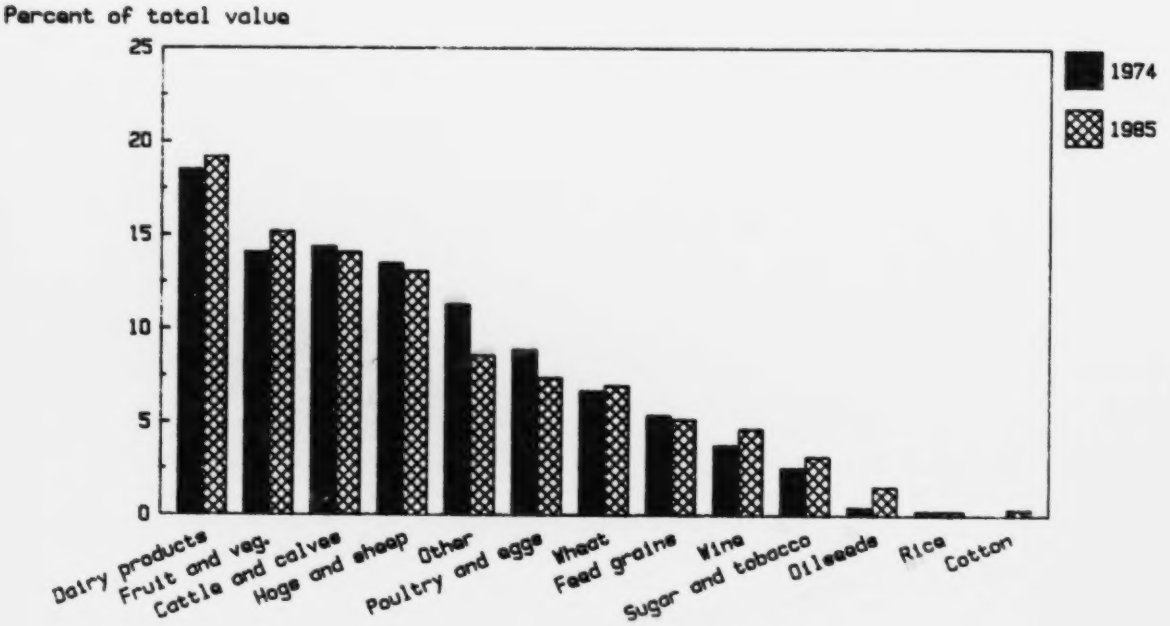


Table 5--Composition of agricultural production

Commodity	United States		EC	
	1974	1985	1974 (EC-9)	1985
	Percent			
Cattle and calves	19.3	20.2	14.4	14.1
Feed grains	13.6	13.5	5.4	5.2
Dairy products	10.3	12.7	18.5	19.2
Fruit, vegetables, and nuts	9.5	10.8	14.1	15.2
Oilseeds	11.5	8.8	.5	1.6
Other	5.1	8.0	11.3	8.6
Poultry and eggs	6.7	7.7	8.9	7.4
Hogs and sheep	7.9	6.6	13.5	13.1
Wheat	7.9	5.6	6.7	7.0
Sugar and tobacco	4.4	3.0	2.6	3.2
Cotton	2.5	2.5	--	.4
Rice	1.3	.6	.3	.3
Wine	--	--	3.8	4.7
Total	100.0	100.0	100.0	100.0

-- = not applicable.
Sources: USDA and EC.

Food Expenditures

EC agricultural price support is paid for through high consumer prices as well as government payments to store surpluses and subsidize exports. U.S. farm income support through deficiency payments means that consumer prices are lower than would be necessary to assure target prices to producers through direct price supports. Since consumers are also generally taxpayers, the same people pay the bill for farm support in either case. However, financing by consumers is probably more regressive than financing by all taxpayers, especially where taxes are progressive.

U.S. consumers spend about 15 percent of their total household expenditures on food, beverages, and tobacco, while EC consumers spend about 25 percent of their total (table 6). Since food costs have been falling in the EC, there has been less consumer pressure to reduce farm support prices than might otherwise be expected. It is often argued that EC consumers are willing to pay the cost of agricultural support as the experience of food shortages in World War II leads many to place a high priority on an assured internal food supply.

Table 6--Food expenditures in 1984 as a percentage of total household expenditures

Item	United States	EC-10
	Percent	
Food	11.7	20.2
Food, beverages, and tobacco	15.2	24.5
Restaurants, cafes, and hotels	5.8	6.4
Food plus restaurants, cafes, and hotels	17.5	26.6

Sources: USDA and EC.

AGRICULTURAL TRADE

The 12-member EC passed the United States as the world's largest agricultural exporter in 1986. EC-12 agricultural exports for 1986 were valued at about $28.1 billion, compared with $26.1 billion in U.S. agricultural exports. The value of U.S. and EC agricultural exports has tended to move in tandem over the past 15 years. Both regions currently export lesser values of agricultural products than at the peak in 1981 (fig. 7 and table 7).

EC exports, buoyed initially by exchange rates that made EC products relatively less expensive, started to rebound as the dollar neared its peak value during 1984 and 1985. As the dollar weakened and world prices fell, export subsidies

Figure 7-Agricultural exports, excluding intra-EC trade

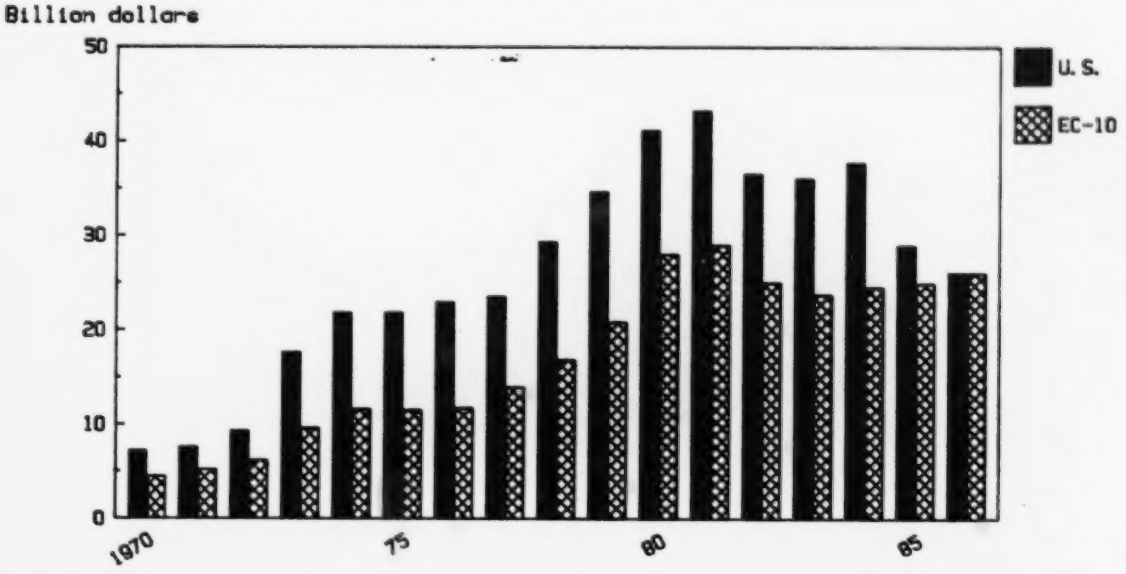


Table 7--Agricultural exports, excluding intra-EC trade

Year	United States	EC-10
	Billion dollars	
1970	7.3	4.6
1971	7.7	5.3
1972	9.4	6.3
1973	17.7	9.7
1974	21.9	11.7
1975	21.9	11.6
1976	23.0	11.8
1977	23.6	14.0
1978	29.4	16.9
1979	34.7	20.9
1980	41.2	28.1
1981	43.3	29.1
1982	36.6	25.1
1983	36.1	23.8
1984	37.8	24.6
1985	29.0	1/25.0 (26.6)
1986 2/	26.1	26.1 (28.1)

1/ Numbers in parentheses represent EC-12.
2/ Estimates.
Sources: USDA and EC.

have permitted increased EC export sales at prices far below internal support levels (fig. 8 and table 8).

The EC is a customs union, formed in part to facilitate trade among its member nations by lowering trade barriers. Trade among the 10 members of the EC has remained stable in the annual $45-46 billion range since 1981. Intra-EC trade represents almost two-thirds of total agricultural trade by EC member countries (fig. 9 and table 9).

Exchange rates are critical to the price of U.S. goods that compete with European goods, either in the EC or other markets. As the dollar has varied from the European Currency Unit (ECU) or its predecessors since 1971, the relative cost of U.S. goods has also varied. In addition, the European Monetary System includes special agricultural or "green" exchange rates and monetary compensatory amounts (MCAs) for individual agricultural commodities traded among EC members. Green rates differ from general exchange rates, leading to different prices in individual countries and to effective subsidies for producers in some countries and taxes on producers in others.

Share of Production Exported

The EC share of farm production exported to non-EC countries edged past the U.S. share for the first time in 1985 (fig. 10 and table 10). While the U.S. share of production exported fell from almost one-third in 1981 to one-fifth in 1985, EC exports rebounded to about one-fifth of production, by value. In 1986, the U.S. share of production fell to 15 percent, the lowest level since the early seventies. In 1985, internal EC trade represented 38 percent of agricultural production. Almost 59 percent of the agricultural production of the EC-10 was sold outside its country of origin in 1985.

Balance of Agricultural Trade

Agriculture has been a net contributor to the U.S. balance of payments since 1970 (fig. 11 and table 11). However, the size of that contribution has recently fallen substantially. Although the United States recently posted some monthly agricultural trade deficits, the net contribution of U.S. agriculture to the balance of payments was $5 billion for 1986, down from almost $27 billion in 1981. The overall U.S. trade balance has ranged from a $9.6-billion surplus in 1975 to a $162-billion deficit in 1986.

Despite growing agricultural exports, the EC remains a net importer of agricultural products, with an almost $20-billion deficit in 1985 (fig. 12 and table 11). From 1970 to 1980, EC agricultural trade deficits ranged from $13 billion to $35 billion, while the overall EC balance of payments has ranged from a $200-million surplus to a $72-billion deficit.

Figure 8-Value of the U.S. dollar in European Currency Units (ECUs)

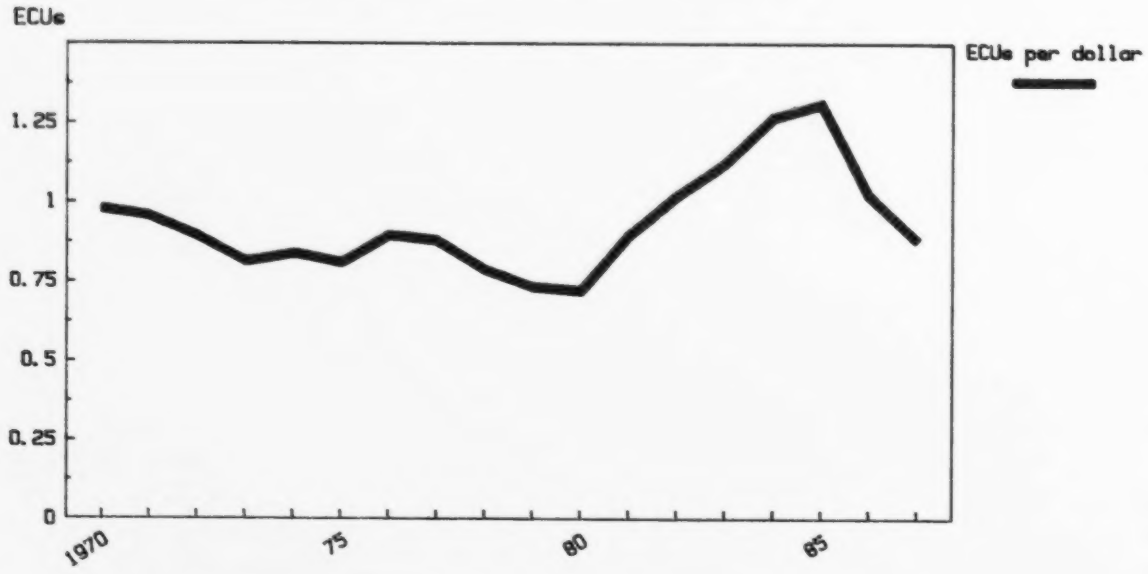


Table 8--Value of the U.S. dollar in European Currency Units (ECUs)

Year	ECUs per dollar
	ECUs
1970	0.98
1971	.95
1972	.89
1973	.81
1974	.84
1975	.81
1976	.89
1977	.88
1978	.78
1979	.73
1980	.72
1981	.90
1982	1.02
1983	1.12
1984	1.27
1985	1.31
1986	1.02
1987 (Jan.-Apr.)	.88

Source: EC.

Figure 9-EC agricultural trade

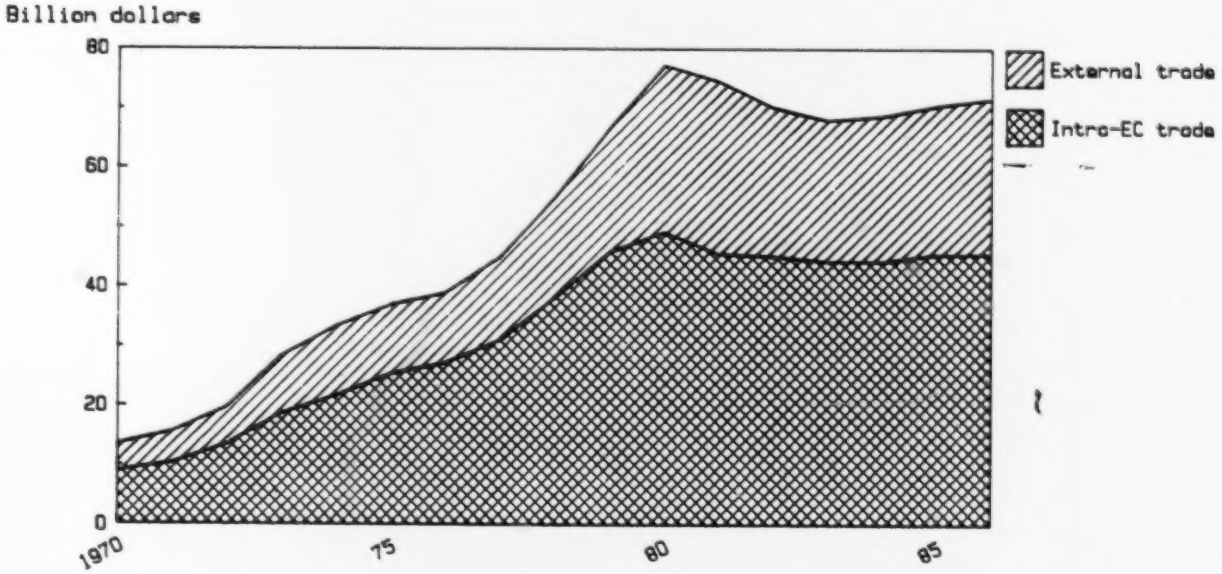


Table 9--EC agricultural trade

Year	Total trade	Intra-EC trade	External trade
		Billion dollars	
1970	13.5	8.9	4.6
1971	15.6	10.3	5.3
1972	19.7	13.4	6.3
1973	28.3	18.6	9.7
1974	33.3	21.6	11.7
1975	36.9	25.3	11.6
1976	38.9	27.1	11.8
1977	44.9	30.9	14.0
1978	54.9	38.0	16.9
1979	66.6	45.7	20.9
1980	77.2	49.1	28.1
1981	74.5	45.4	29.1
1982	70.1	45.0	25.1
1983	67.9	44.1	23.8
1984	68.7	44.1	24.6
1985	70.4	45.4	25.0
1986	71.6	45.5	26.1

Sources: EC and UN.

Figure 10-Share of farm production exported

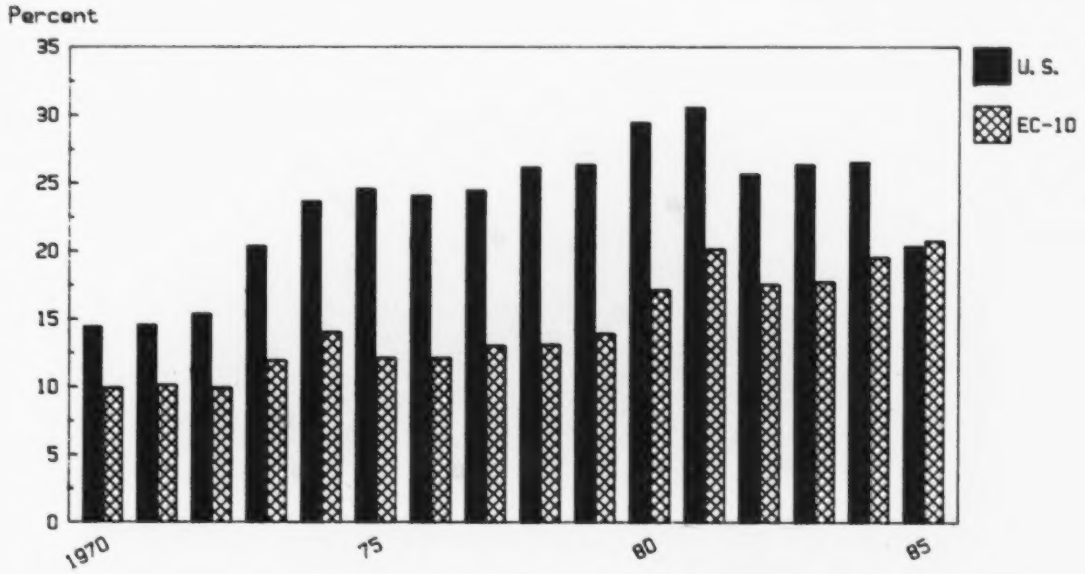


Table 10--Share of farm production exported

Year	United States	EC-10
	Percent	
1970	14.5	1/ 10.0
1971	14.6	10.2
1972	15.4	10.0
1973	20.4	12.0
1974	23.7	14.1
1975	24.6	12.2
1976	24.1	12.2
1977	24.5	13.1
1978	26.2	13.2
1979	26.4	14.0
1980	29.5	17.2
1981	30.6	20.2
1982	25.7	17.6
1983	26.4	17.8
1984	26.5	19.6
1985	20.4	20.8

1/ EC-9.
Sources: USDA and EC.

Figure 11-U.S. trade balance

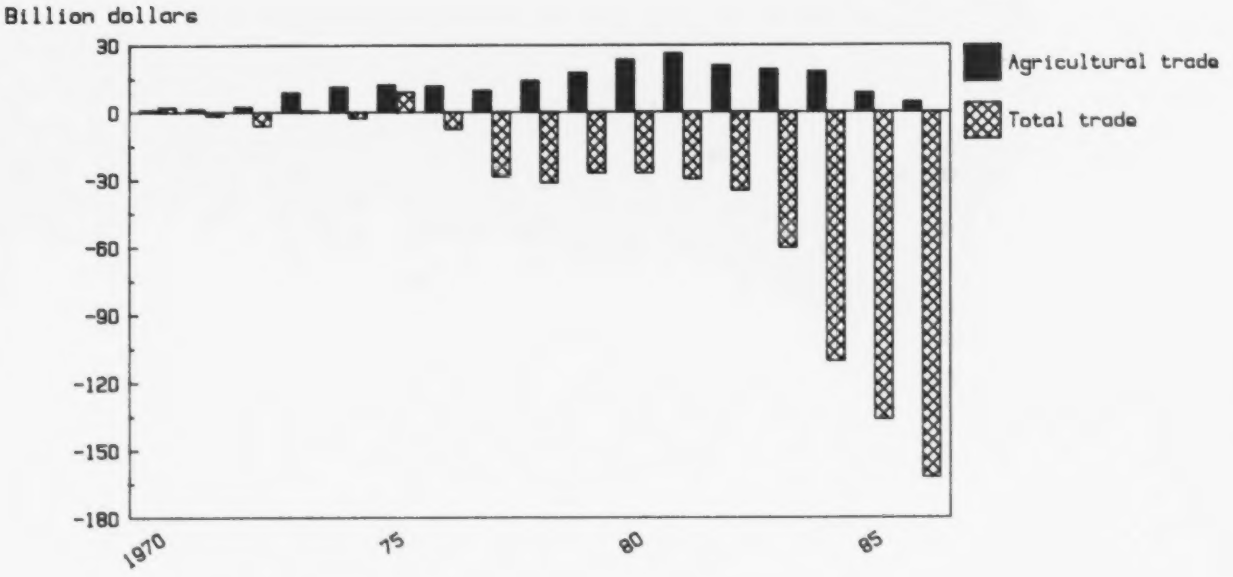


Figure 12-EC trade balance, excluding intra-EC trade

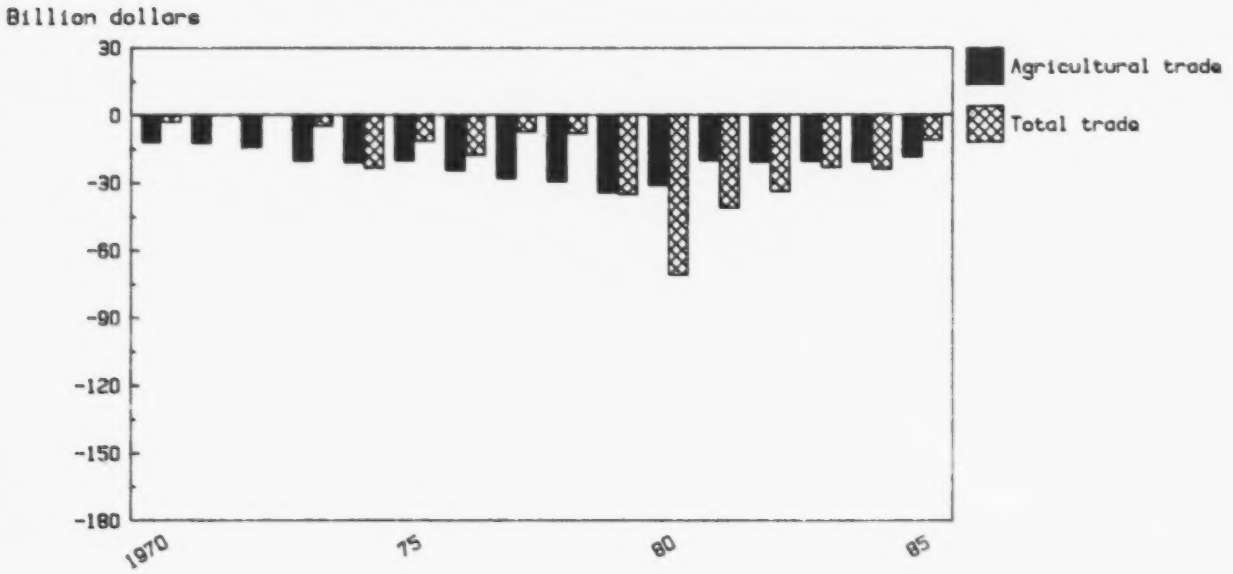


Table 11--Trade balances, excluding intra-EC trade

Year	United States		EC	
	Total	Agr.	Total	Agr.
	Billion dollars			
1970	2.8	1.5	-3.6	-12.7
1971	-2.0	1.9	-.5	-13.0
1972	-6.3	2.9	.2	-14.8
1973	1.2	9.3	-5.4	-20.8
1974	-3.0	11.7	-24.0	-21.6
1975	9.6	12.6	-12.0	-20.7
1976	-7.8	12.0	-18.2	-25.1
1977	-29.0	10.2	-7.8	-28.7
1978	-31.8	14.6	-8.6	-30.0
1979	-27.3	18.0	-35.7	-35.0
1980	-27.4	23.9	-71.6	-31.7
1981	-30.0	26.6	-41.5	-20.8
1982	-35.2	21.3	-34.2	-21.5
1983	-60.7	19.5	-23.5	-21.0
1984	-110.9	18.5	-24.4	-21.4
1985	-136.7	9.1	-11.5	-19.2
1986	-162.4	5.0	na	na

na = not available.
Sources: USDA and EC.

Bilateral Trade

The EC remains the largest market for U.S. agricultural exports, even as it has become our most important competitor (fig. 13 and table 12). The EC-12 purchased more than one-fourth of all U.S. agricultural exports in 1986. It also provided almost one-fifth of all U.S. agricultural imports. The top 20 markets for U.S. agricultural exports in 1986 included 9 of the 12 EC nations. The ranking of EC members included: Netherlands (2), West Germany (7), Italy (9), Spain (10), United Kingdom (11), France (15), Belgium-Luxembourg (18), and Portugal (20).

Although the United States continues to export more agricultural products to the EC than it imports, the balance has fallen substantially since 1980. By 1985, U.S. exports had fallen by almost one-half, while U.S. imports from the EC had increased by three-fourths. In 1986, the U.S. agricultural trade surplus with the EC-10 grew slightly, but the surplus with the EC-12 declined.

U.S. agricultural exports to the EC-10 recovered to $5.6 billion in 1986, while U.S. agricultural imports from the EC-10 rose to $3.8 billion. Addition of Spain and Portugal raised total U.S. agricultural exports to the EC-12 to $6.6 billion for 1986.

Oilseeds and products made up 39 percent of U.S. agricultural exports to the EC-12 during FY1986 (table 13). These were followed by grains and feeds (23 percent), animals and products (12 percent), fruits, nuts, vegetables, and products (10 percent), and tobacco (8.5 percent). Cotton and other products made up the balance.

In nonagricultural trade, the EC-12 was a $44-billion market for the United States in 1986, an increase over 1985. However, U.S. nonagricultural imports from the EC-12 rose sharply, to $71 billion in 1986, leaving an almost $27-billion U.S. trade deficit with the EC in the nonagricultural sector. The U.S. agricultural trade surplus with the EC offset less than 10 percent of the nonagricultural deficit.

Figure 13-Bilateral agricultural trade

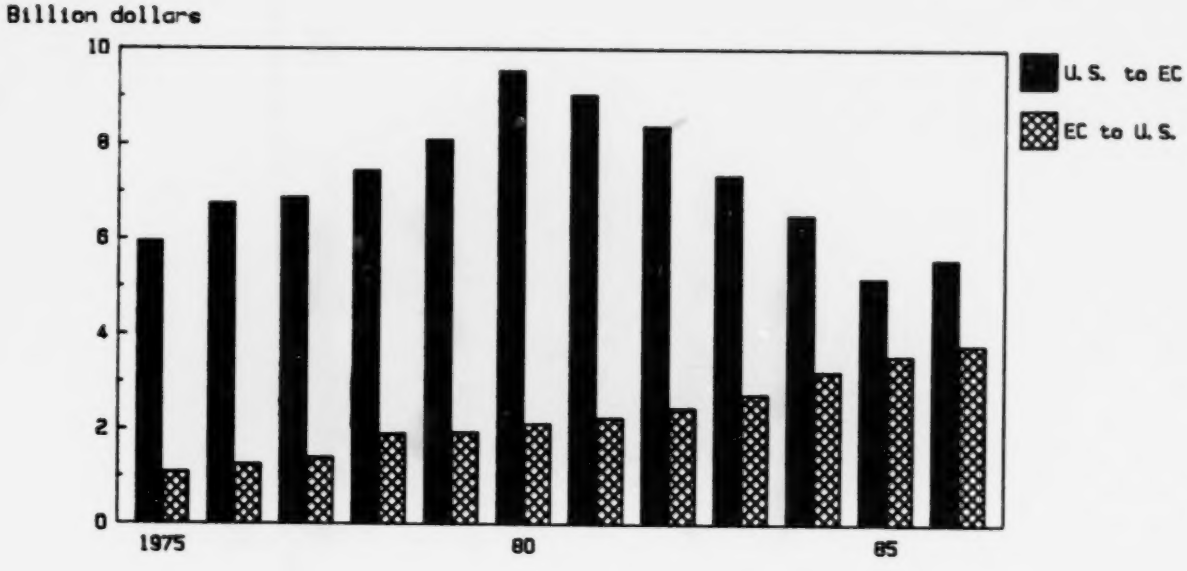


Table 12--Bilateral agricultural trade, calendar year

Year	United States to EC-10	EC-10 to United States	U.S. balance
		Billion dollars	
1975	6.0	1.1	4.9
1976	6.8	1.3	5.5
1977	6.9	1.4	5.5
1978	7.5	1.9	5.6
1979	8.1	1.9	6.2
1980	9.6	2.1	7.5
1981	9.1	2.3	6.8
1982	8.4	2.5	5.9
1983	7.4	2.8	4.6
1984	6.5	3.2	3.3
1985	1/ 5.2 (6.5)	3.6 (3.9)	1.6 (2.6)
1986	5.6 (6.6)	3.8 (4.1)	1.8 (2.5)

1/ Numbers in parentheses are for the EC-12.
Source: USDA.

Table 13--U.S. agricultural exports to the EC-12, fiscal year

Commodity	1982	1983	1984	1985	1986
			Million dollars		
Animals and products	987	788	793	649	765
Grains and feeds	3,403	2,488	2,621	1,800	1,507
Fruits and preparations	229	183	156	136	161
Nuts and preparations	301	250	263	330	357
Vegetables and preparations	178	152	147	128	137
Oilseeds and products	5,173	4,403	3,378	2,318	2,506
Tobacco, unmanufactured	616	636	669	663	549
Cotton	215	209	369	375	123
Other	274	296	244	265	321
Total	11,376	9,405	8,640	6,664	6,442

Sources: USDC and USDA.

Composition of Agricultural Exports and Imports

Wheat, feed grains, and oilseeds are the largest U.S. agricultural exports, followed by animal products, beverages and tobacco, and cotton and wool (fig. 14 and table 14).

EC agricultural exports have been led by beverages, but grain exports, especially wheat and barley, and animal product exports have been a growing share of the total (fig. 15 and table 14). The EC is a major exporter of oilseed meal and vegetable oil produced from imported soybeans. While grains and oilseeds made up over one-half of U.S. exports, they accounted for about one-sixth of the EC total. Overall, EC agricultural exports are more diversified by product category.

The United States imports significant amounts of animal products, fruit, and vegetables to supplement domestic production (fig. 16 and table 15). Other commodities not grown domestically, such as coffee, tea, and cocoa, are important import items.

The EC imports commodities not grown domestically, often under special arrangements with former colonies of its members (fig. 17 and table 15). The EC also imports significant amounts of animal products, oilseeds, animal feeds, and cereals, important U.S. exports.

Figure 14-U.S. composition of agricultural exports

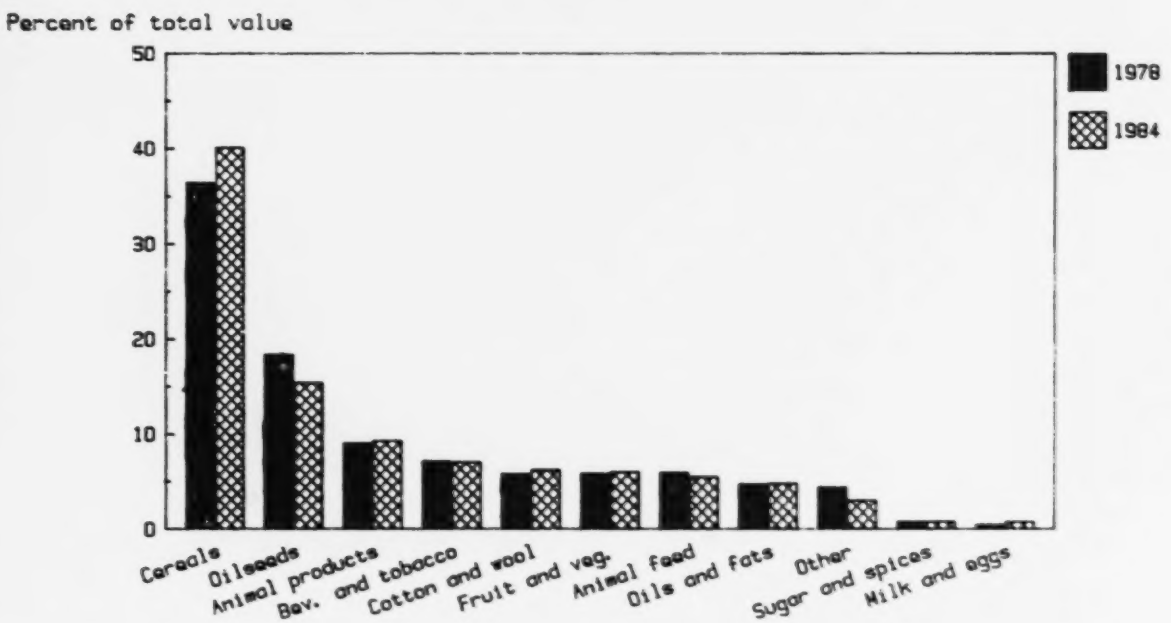


Figure 15-EC composition of agricultural exports

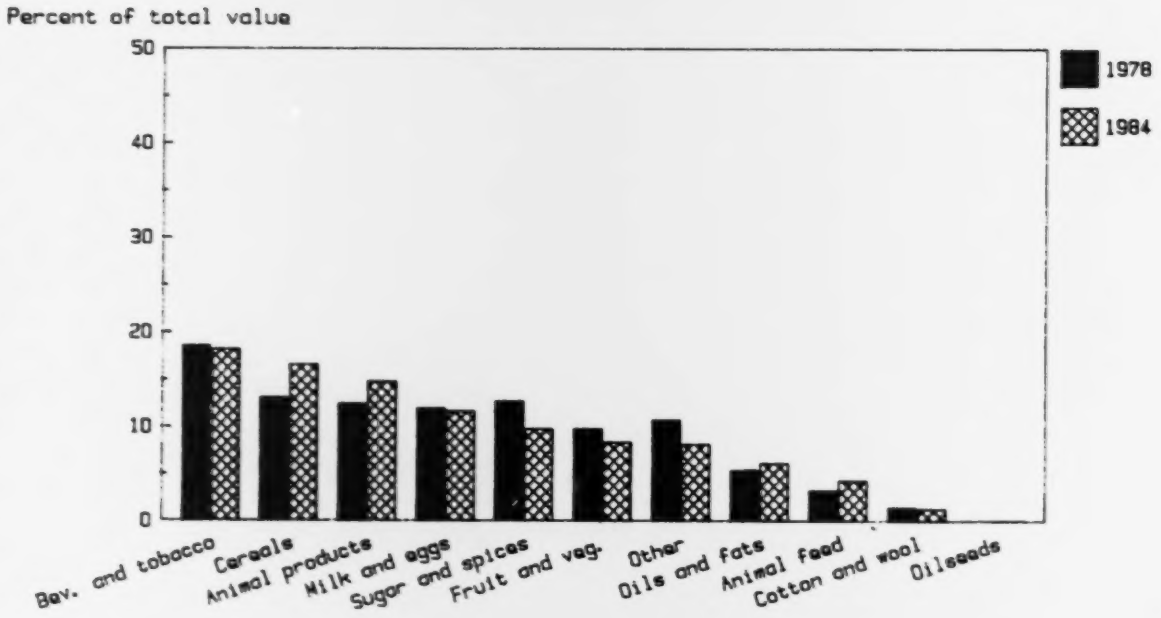


Table 14--Composition of agricultural exports

Commodity	United States		EC 1/	
	1978	1984	1978	1984
	Percent			
Cereals	36.5	40.2	13.1	16.6
Oilseeds	18.4	15.5	.1	.2
Animal products 2/	9.1	9.4	12.5	14.8
Beverages and tobacco 3/	7.2	7.1	18.6	18.3
Cotton and wool	5.9	6.3	1.5	1.4
Fruit and vegetables	6.0	6.1	9.8	8.4
Animal feed	6.1	5.6	3.3	4.4
Oils and fats	4.8	4.9	5.4	6.2
Other 4/	4.5	3.1	10.8	8.2
Sugar and spices 5/	.9	.9	12.8	9.8
Milk and eggs	.6	.9	12.0	11.7
Total	100.0	100.0	100.0	100.0

1/ EC-12. 2/ Includes fish. 3/ Includes alcoholic beverages. 4/ Includes agricultural raw materials and miscellaneous food products. 5/ Includes honey, coffee, cocoa, and tea.

Source: UN.

Figure 16-U.S. composition of agricultural imports

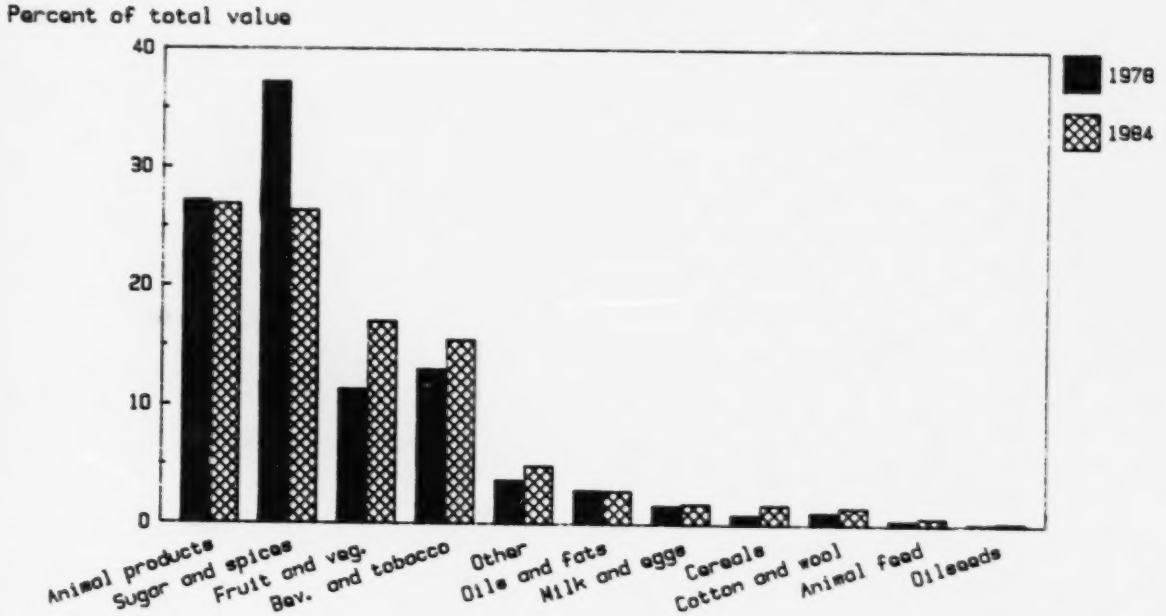


Figure 17-EC composition of agricultural imports

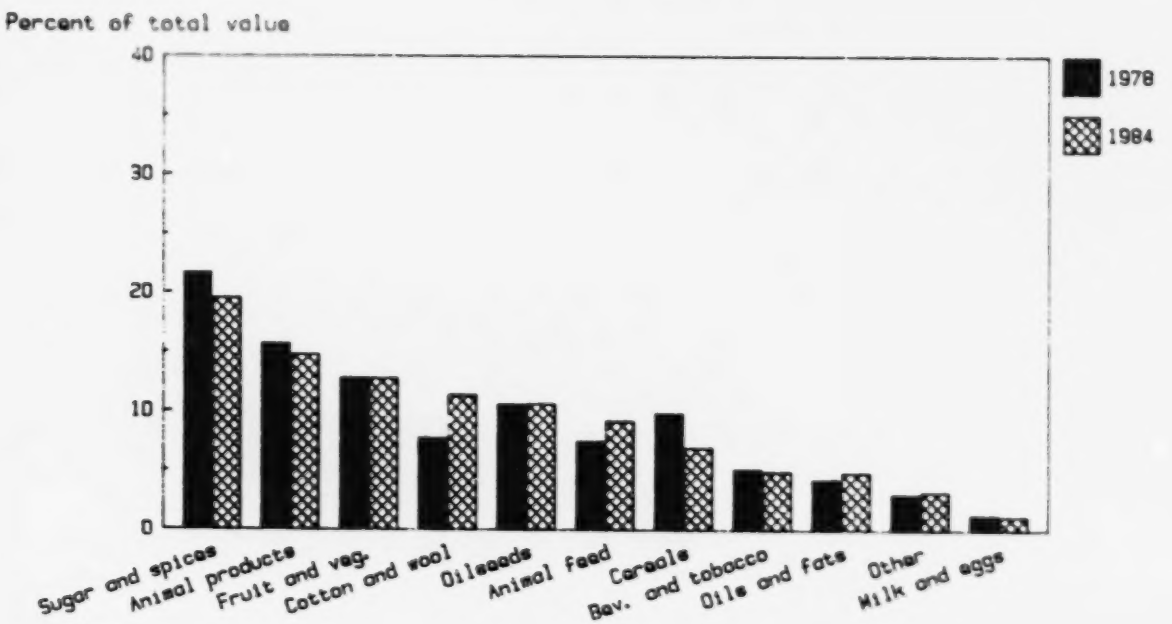


Table 15--Composition of agricultural imports

Commodity	United States		EC 1/	
	1978	1984	1978	1984
	Percent			
Animal products 2/	27.2	26.9	15.7	14.8
Sugar and spices 3/	37.3	26.4	21.7	19.6
Fruit and vegetables	11.3	17.1	12.8	12.8
Beverages and tobacco 4/	13.1	15.5	5.2	5.0
Other 5/	3.7	5.0	3.1	3.3
Oils and fats	2.9	2.9	4.3	4.9
Milk and eggs	1.7	1.8	1.4	1.2
Cereals	.9	1.8	9.9	7.0
Cotton and wool	1.1	1.6	7.8	11.4
Animal feed	.5	.7	7.5	9.2
Oilseeds	.3	.3	10.6	10.7
Total	100.0	100.0	100.0	100.0

1/ EC-12.
2/ Includes fish.
3/ Includes honey, coffee, cocoa, and tea.
4/ Includes alcoholic beverages.
5/ Includes agricultural raw materials and miscellaneous food products.
Source: UN.

High-Value Product Trade

The share of high-unit-valued and value-added products in the total agricultural export mix is considerably more important in the EC than in the United States. High-valued products made up one-third of 1985 U.S. agricultural exports, the largest share since 1971 (fig. 18 and table 16). They made up almost three-fourths of EC agricultural exports in 1985 (fig. 19 and table 16).

Erosion of the value of U.S. agricultural exports since their 1981 peak has hurt high-value product exports less than bulk, lower unit-valued products. Nonetheless, U.S. exports of the high-valued products have fallen 21 percent since 1981. EC exports of these products fell about 16 percent in the same period.

Three types of such products can be distinguished: highly processed, semiprocessed, and high-value unprocessed products:

- Highly processed products include prepared and preserved meats; milk, butter, and cheese; cereal preparations; dried fruit; preserved or prepared fruit and vegetables; chocolate and other candy; spices; beverages; and cigarettes.

- Semiprocessed products include fresh, chilled, and frozen meats; wheat flour; sugar; coffee; cocoa; tea; animal feeds; oilcake and meal; animal oils and fats; and vegetable oil.

- High-valued unprocessed products include eggs, fresh fruit, nuts, and vegetables.

In 1985, exports of highly processed products accounted for 11 percent of all U.S. agricultural exports, semiprocessed products made up 15 percent, and unprocessed high-value products represented almost 6 percent. Almost 48 percent of 1985 EC agricultural exports were highly processed. Semiprocessed products accounted for another 23 percent, with high-value unprocessed products making up about 5 percent.

Trends in Trade of Program Commodities

Since the CAP was established in the early sixties, the EC has shifted from a net importer of most agricultural commodities to a net exporter of grains, dairy products, sugar, and beef. The EC transition to a position of net exporter has been gradual, beginning with wheat in 1974, followed by sugar in 1976, butter in 1977, beef in 1980, and coarse grains in 1984. The United States has faced especially strong EC competition in grain markets, where U.S. shares have fallen as EC exports increased. Figures 20-28 and tables 17-25 show total world exports and market shares (either net exports or imports) for beef, butter, total grains, coarse grains, wheat, sugar, cotton, soybeans, and soymeal.

Figure 18-U.S. high-value and total agricultural exports

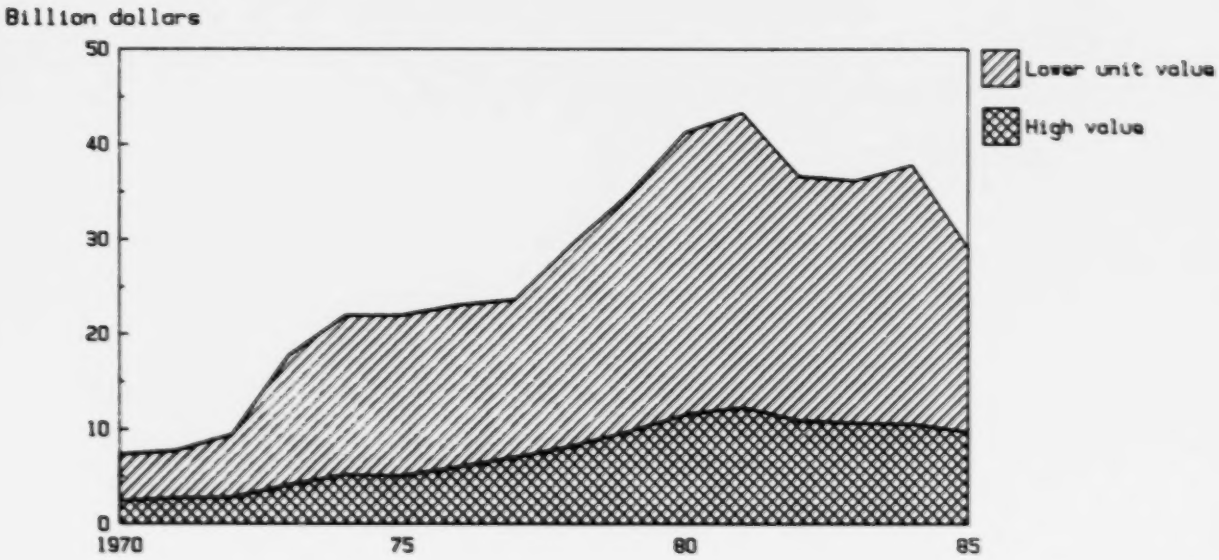


Figure 19-EC high-value and total agricultural exports

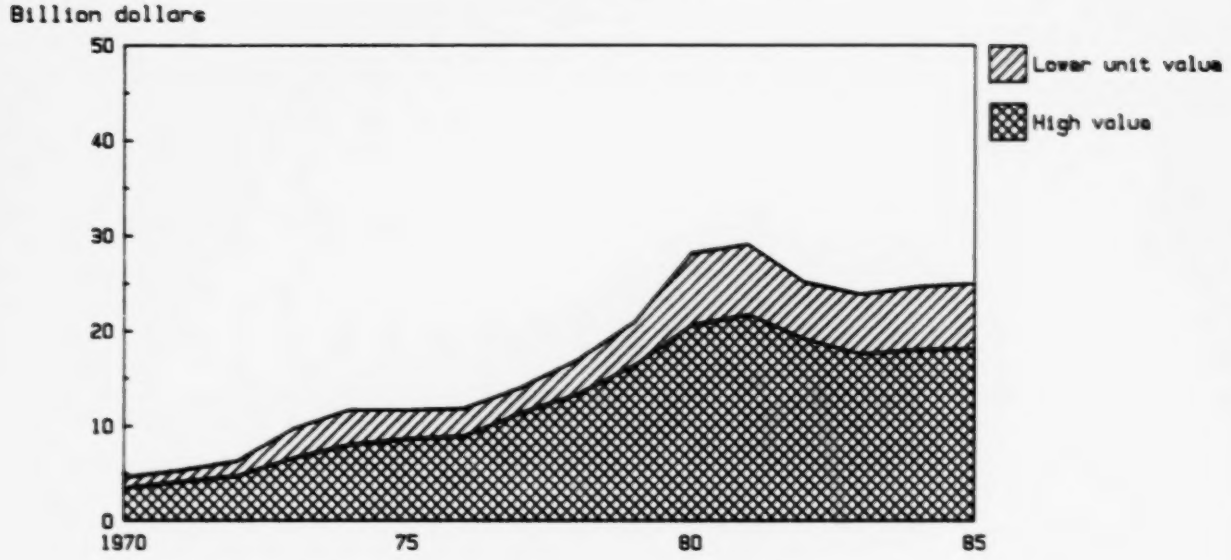


Table 16--High-value and total agricultural exports

Year	United States		EC	
	Total agricultural exports	High-value agricultural exports	Total agricultural exports	High-value agricultural exports
	Billion dollars			
1970	7.3	2.4	4.6	3.4
1971	7.7	2.7	5.3	4.1
1972	9.4	2.8	6.3	4.7
1973	17.7	4.1	9.7	6.6
1974	21.9	5.2	11.7	8.0
1975	21.9	5.0	11.6	8.6
1976	23.0	6.0	11.8	8.9
1977	23.6	7.0	14.0	11.3
1978	29.4	8.2	16.9	13.3
1979	34.7	9.7	20.9	16.3
1980	41.2	11.5	28.1	20.5
1981	43.3	12.3	29.1	21.7
1982	36.6	10.9	25.1	19.1
1983	36.1	10.6	23.8	17.5
1984	37.8	10.5	24.6	18.0
1985	29.0	9.7	25.0	18.2

Sources: USDA, EC, and UN.

Figure 20 - Shares of world beef exports

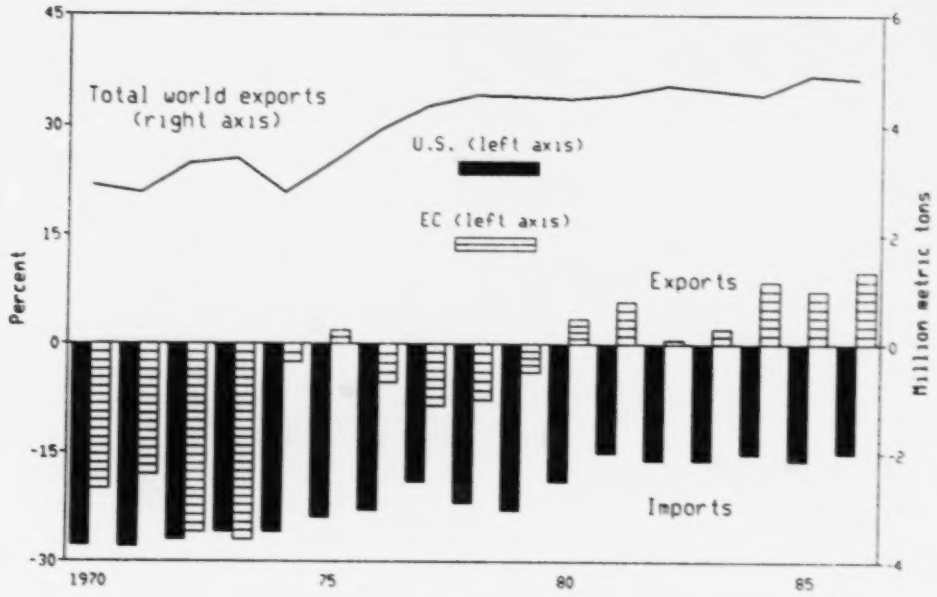


Table 17--Shares of world beef exports

Year	Total world exports	Net trade 1/	
		United States	EC-10
	1,000 metric tons		
1970	2,900	-806	-593
1971	2,773	-773	-500
1972	3,300	-877	-868
1973	3,395	-876	-914
1974	2,777	-718	-69
1975	3,327	-784	61
1976	3,935	-909	-206
1977	4,344	-843	-371
1978	4,538	-979	-347
1979	4,516	-1,026	-170
1980	4,481	-866	155
1981	4,551	-699	266
1982	4,720	-773	28
1983	4,639	-760	98
1984	4,541	-686	394
1985	4,894	-796	364
1986	4,841	-745	485

1/ Negative numbers represent imports and positive numbers represent exports.
Source: USDA.

Figure 21 - Shares of world butter exports

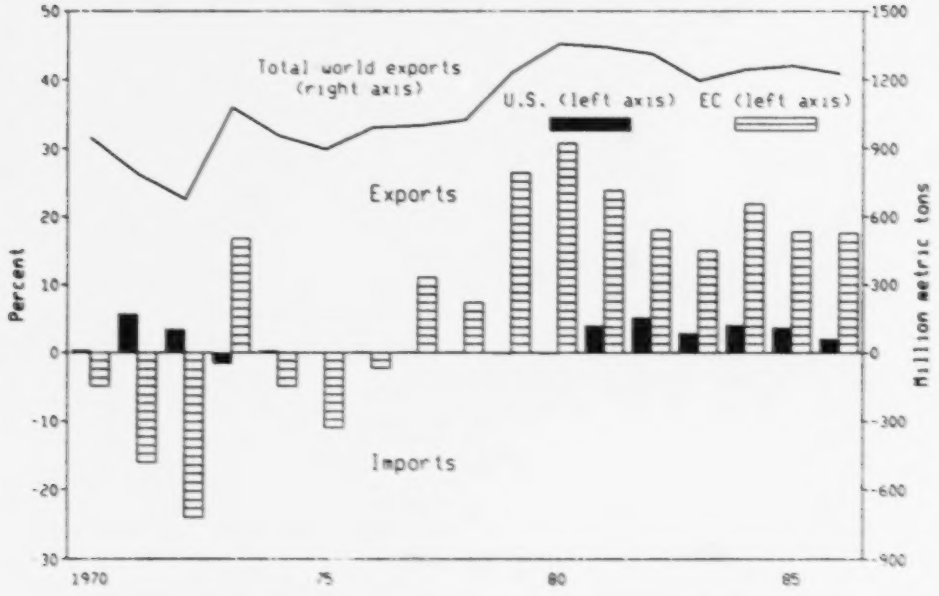


Table 18--Shares of world butter exports

Year	Total world exports	Net trade 1/	
		United States	EC-10
	1,000 metric tons		
1970	947	3	-46
1971	788	44	-128
1972	675	23	-163
1973	1,080	-17	181
1974	958	2	-47
1975	895	0	-98
1976	994	1	-22
1977	1,001	1	110
1978	1,027	1	75
1979	1,233	-1	326
1980	1,355	-1	416
1981	1,343	53	319
1982	1,312	67	236
1983	1,197	33	179
1984	1,244	50	271
1985	1,259	46	223
1986	1,227	24	215

1/ Negative numbers represent imports and positive numbers represent exports.

Source: USDA.

Figure 22 – Shares of world total grain exports

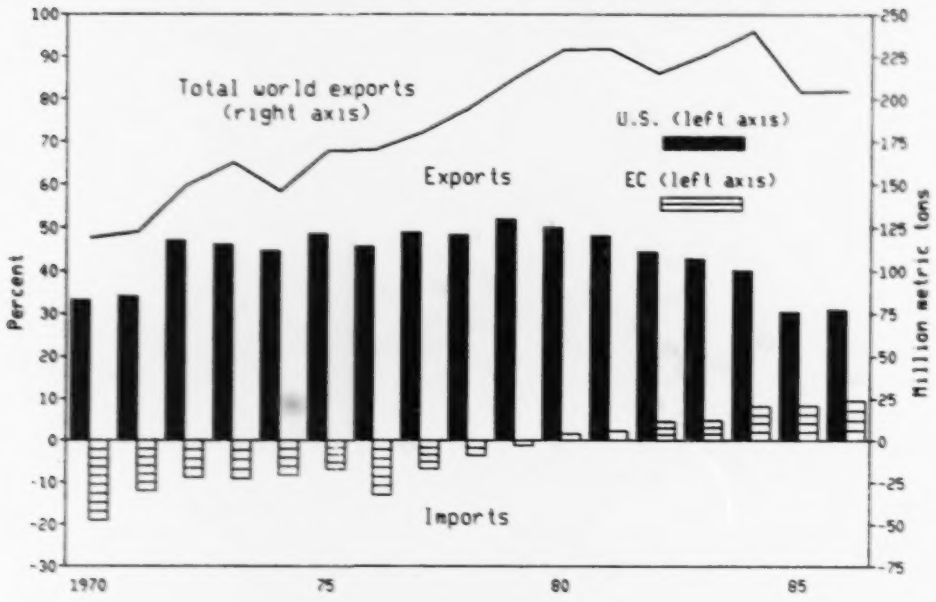


Table 19--Shares of world total grain exports

Year	Total world exports	Net trade 1/	
		United States	EC-10
	1,000 metric tons		
1970	119,236	39,802	-22,308
1971	122,665	41,874	-14,502
1972	149,109	70,369	-13,111
1973	162,417	75,083	-14,757
1974	145,895	65,262	-12,066
1975	169,434	82,441	-11,772
1976	169,761	77,646	-22,235
1977	179,919	88,065	-11,983
1978	194,670	94,171	-6,731
1979	213,092	110,813	-2,652
1980	229,097	114,537	3,607
1981	229,323	110,459	5,200
1982	215,117	95,689	9,747
1983	226,143	96,902	10,836
1984	239,724	96,218	19,374
1985	204,158	61,933	16,930
1986	204,683	63,386	19,534

1/ Negative numbers represent imports and positive numbers represent exports.
Source: USDA.

Figure 23 - Shares of world coarse grain exports

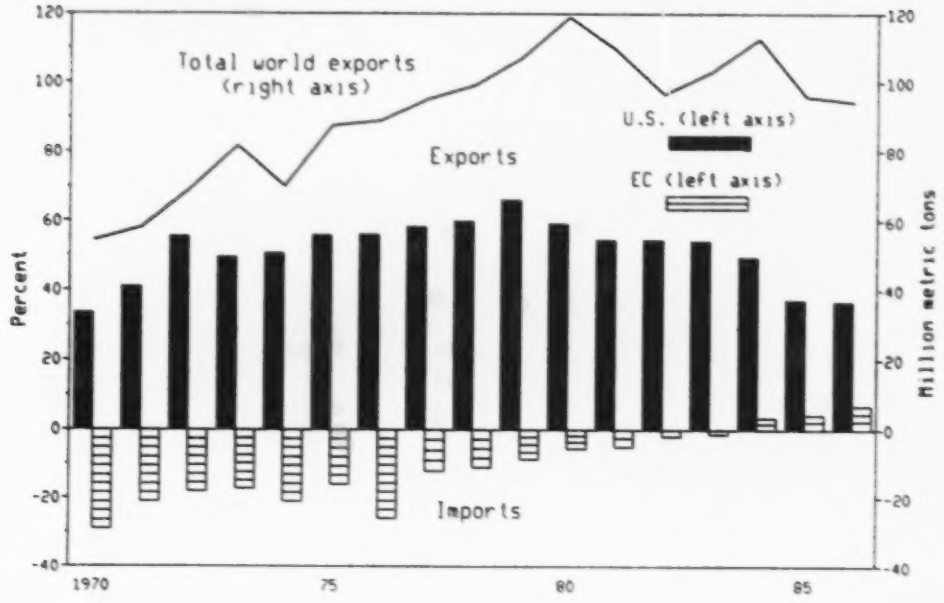


Table 20--Shares of world coarse grain exports

Year	Total world exports	Net trade 1/	
		United States	EC-10
	1,000 metric tons		
1970	54,292	18,249	-15,726
1971	58,159	23,822	-12,111
1972	68,921	38,305	-12,687
1973	81,602	40,448	-14,081
1974	69,943	35,431	-14,607
1975	87,400	48,839	-14,244
1976	88,774	49,779	-23,069
1977	94,922	55,262	-11,667
1978	99,116	59,270	-11,164
1979	107,132	70,742	-9,295
1980	118,971	70,394	-6,559
1981	109,340	59,673	-5,452
1982	96,537	52,613	-1,789
1983	103,005	55,879	-1,240
1984	112,609	55,807	3,751
1985	95,779	35,625	4,033
1986	94,218	34,595	6,355

1/ Negative numbers represent imports and positive numbers represent exports.
Source: USDA.

Figure 24 - Shares of world wheat exports

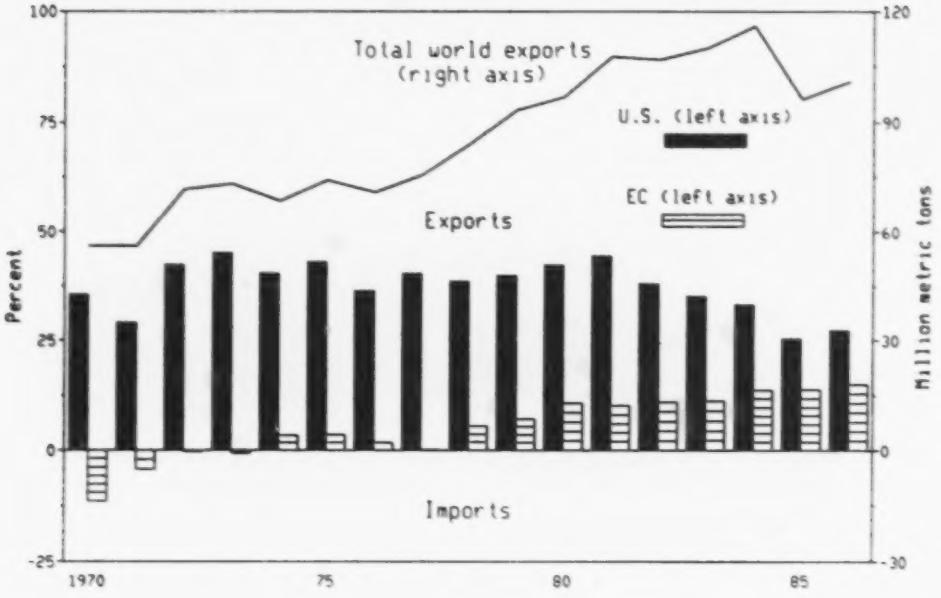


Table 21--Shares of world wheat exports

Year	Total world exports	Net trade 1/	
		United States	EC-10
	1,000 metric tons		
1970	56,479	20,140	-6,456
1971	56,060	16,284	-2,363
1972	71,607	30,355	-164
1973	72,996	33,038	-474
1974	68,428	27,637	2,354
1975	73,964	31,870	2,554
1976	70,821	25,773	1,248
1977	75,521	30,536	128
1978	84,024	32,473	4,661
1979	93,286	37,368	6,645
1980	96,893	41,122	10,382
1981	107,798	48,117	10,925
1982	107,009	40,878	11,763
1983	109,967	38,778	12,333
1984	115,895	38,502	15,899
1985	96,217	24,492	13,271
1986	100,925	27,569	15,190

1/ Negative numbers represent imports and positive numbers represent exports.
Source: USDA.

Figure 25 - Shares of world sugar exports

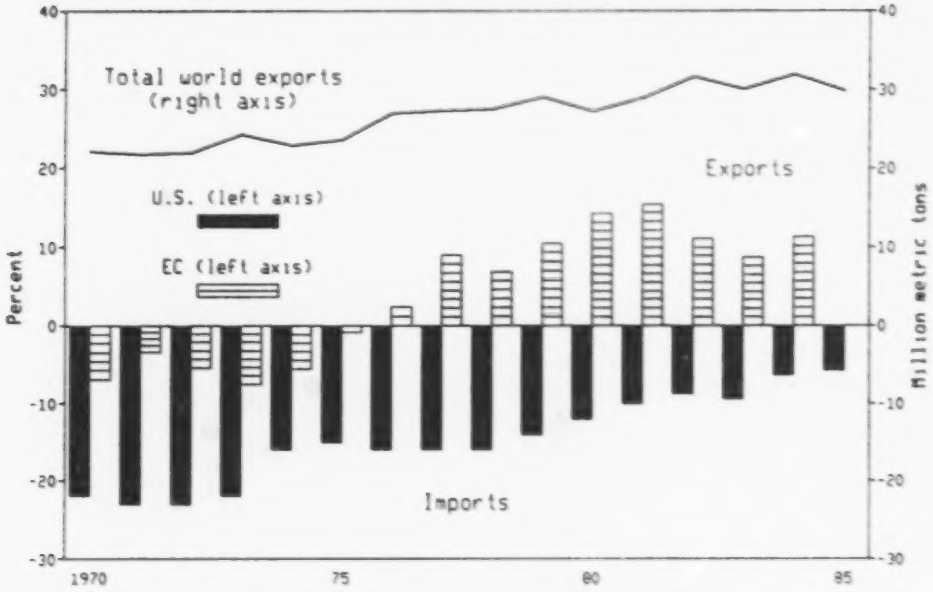


Table 22--Shares of world sugar exports

Year	Total world exports	Net trade 1/	
		United States	EC-10
	1,000 metric tons		
1970	2,204	-4,821	-1,521
1971	2,167	-4,973	-733
1972	2,190	-5,099	-1,183
1973	2,425	-5,346	-1,826
1974	2,285	-3,698	-1,276
1975	2,355	-3,584	-207
1976	2,696	-4,442	630
1977	2,722	-4,400	2,434
1978	2,747	-4,525	1,887
1979	2,893	-4,019	3,033
1980	2,714	-3,360	3,856
1981	2,887	-2,997	4,453
1982	316	-2,757	3,500
1983	300	-2,809	2,600
1984	319	-1,999	3,600
1985	298	-1,697	na
1986	na	-1,080	na

na = not available.

1/ Negative numbers represent imports and positive numbers represent exports.

Source: USDA.

Figure 26 - Shares of world cotton exports

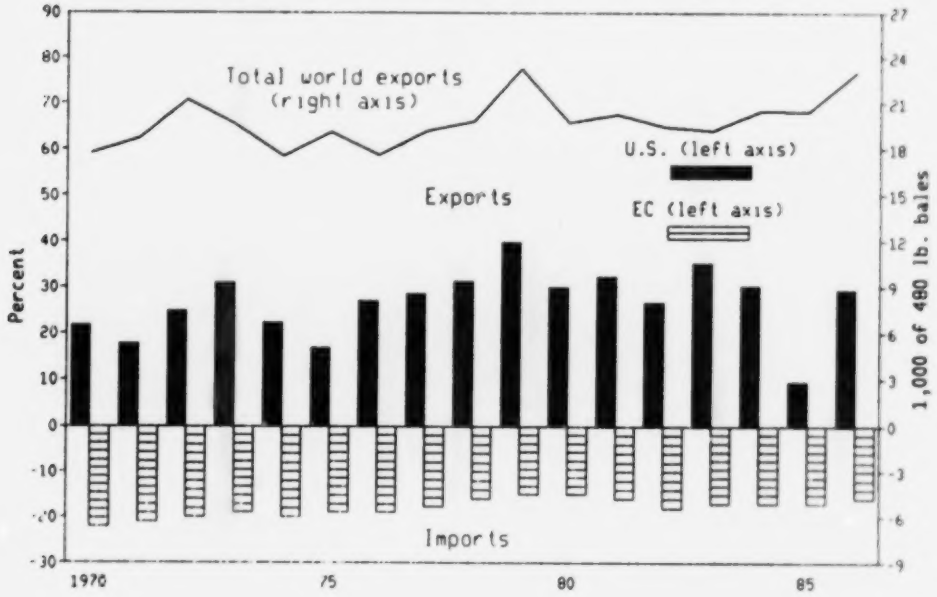


Table 23--Shares of world cotton exports

Year	Total world exports	Net trade 1/	
		United States	EC-10
	1,000 480-pound bales		
1970	17,748	3,860	-3,956
1971	18,685	3,313	-3,917
1972	21,196	5,277	-4,310
1973	19,583	6,075	-3,636
1974	17,497	3,892	-3,543
1975	19,093	3,219	-3,664
1976	17,570	4,746	-3,324
1977	19,149	5,479	-3,391
1978	19,790	6,176	-3,185
1979	23,244	9,224	-3,540
1980	19,713	5,899	-2,936
1981	20,233	6,541	-3,324
1982	19,427	5,187	-3,531
1983	19,198	6,774	-3,277
1984	20,457	6,191	-3,468
1985	20,440	1,927	-3,382
1986	23,028	6,745	-3,660

1/ Negative numbers represent imports and positive numbers represent exports.
Source: USDA.

Figure 27 - Shares of world soybean exports

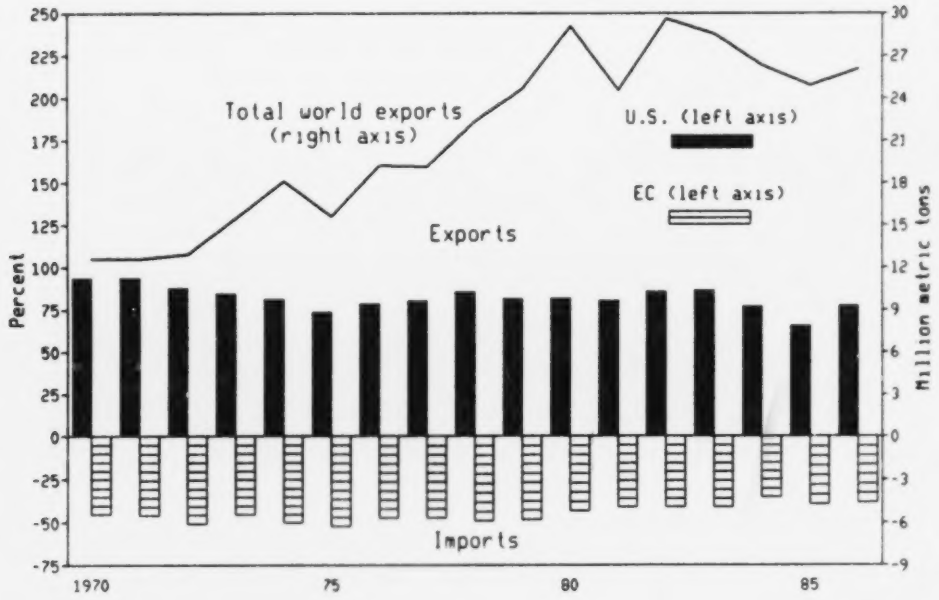


Table 24--Shares of world soybean exports

Year	Total world exports	Net trade 1/	
		United States	EC-10
	1,000 metric tons		
1970	12,571	11,773	-5,671
1971	12,576	11,806	-5,773
1972	12,906	11,344	-6,511
1973	15,441	13,048	-7,005
1974	18,086	14,673	-9,095
1975	15,580	11,450	-8,144
1976	19,229	15,107	-9,078
1977	19,141	15,351	-9,078
1978	22,339	19,061	-10,971
1979	24,658	20,117	-11,780
1980	29,063	23,818	-12,625
1981	24,538	19,712	-10,007
1982	29,547	25,285	-12,131
1983	28,522	24,634	-11,700
1984	26,300	20,215	-9,275
1985	24,883	16,279	-9,708
1986	26,065	20,142	-9,808

1/ Negative numbers represent imports and positive numbers represent exports.

Source: USDA.

Figure 28 - Shares of world soymeal exports

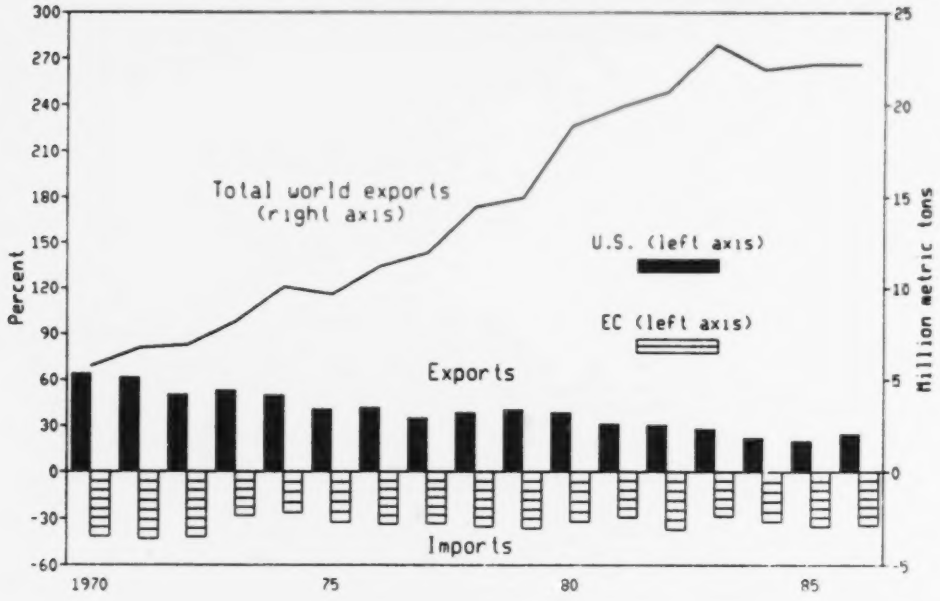


Table 25--U.S. and EC shares of world soymeal exports

Year	Total world exports	Net trade 1/	
		United States	EC-10
		1,000 metric tons	
1970	5,728	3,661	-2,370
1971	6,719	4,136	-2,886
1972	6,888	3,452	-2,883
1973	8,156	4,304	-2,288
1974	10,068	5,033	-2,574
1975	9,648	3,900	-3,089
1976	11,182	4,667	-3,749
1977	11,910	4,136	-3,886
1978	14,454	5,516	-5,085
1979	14,970	5,997	-5,348
1980	18,853	7,196	-6,007
1981	19,881	6,154	-5,675
1982	20,726	6,266	-7,613
1983	23,267	6,449	-6,629
1984	21,922	4,862	-7,102
1985	22,198	4,460	-7,717
1986	22,182	5,450	-7,541

1/ Negative numbers represent imports and positive numbers represent exports.
Source: USDA.

Competition in Specific Agricultural Markets

In the face of declining agricultural exports, the U.S. Government uses a number of tools to compete for market share: lowering prices through the export enhancement program (EEP), providing short- and medium-term commercial export credit guarantees, providing food aid, supporting export promotion through the targeted export assistance program (TEA), and supporting organizations representing producers, governments, and trade associations.

EEP provides bonuses (in the form of commodities owned by the Commodity Credit Corporation (CCC) to exporters to help them meet competitors' prices in specific markets (table 26). In 1986, bonuses averaged $25 per ton on wheat and almost $80 per ton on wheat flour. The program provides up to $1.5 billion in export support through 1988. Sales of about 11 million tons of wheat and flour, 2.8 million tons of barley and barley malt, dairy cattle, frozen poultry, poultry feed, rice, sorghum, eggs, and vegetable oil took place under the program during May 1986-March 1987.

Most EC support for exports is through export and processing subsidies that directly lower the prices at which commodities can be sold on world markets. The EC also provides considerable food aid, including large amounts of grain, nonfat dry milk, and vegetable oils. While the EC does not provide credit to support exports, individual national governments do. For example, France provides support for promotional costs and credit guarantees through its export credit insurance company, Compagnie Francaise d'Assurance pour le Commerce Exterieur (COFACE). Credit guarantees covered about one-fourth of French agricultural exports to non-EC/U.S. destinations in 1983, with France accounting for about one-fourth of EC-10 exports. In contrast, CCC credit guarantees covered about 15 percent of U.S. agricultural exports to non-EC destinations in 1983.

Between 1970 and 1985, both U.S. and EC market shares increased in most world markets (table 27). But, rates of increase differed considerably. In the Middle East and Latin America, U.S. and EC shares moved in opposite directions. The dominance of the United States over the EC in particular regional markets reflects a combination of geographical proximity, affecting transportation costs; political, cultural, and commercial ties; as well as export promotion policies and programs (designed to increase exports).

AGRICULTURAL PROGRAMS AND POLICIES

The roots of current U.S. agricultural support programs are over 50 years old, while the EC CAP is now 25 years old. Agricultural policies in both regions have adjusted only marginally to the major changes in world agricultural markets, contributing to the periodic conflicts arising over trade implications of domestic agricultural policies. These policies have also contributed to the explosive growth in program costs in recent years.

U.S. farm policies provide price and income support to grain, cotton, and, to a limited extent, soybean producers. The primary mechanisms used are price support measures, such as nonrecourse loans; income support through deficiency payments; and production input control measures, such as acreage set-asides and paid land diversions. Direct government purchases support dairy prices. U.S. prices for sugar, peanuts, and dairy products are partly protected through border measures such as import quotas.

Table 26--Targets for U.S. export enhancement program

Country	Commodity
Algeria	Barley/dairy cattle/eggs/flour/semolina/wheat
Bahrain	Dairy cattle
Benin	Wheat
Cameroon	Wheat/flour
Canary Islands	Dairy cattle/wheat
China	Wheat
Cyprus	Barley
Dominican Republic	Eggs/poultry
Egypt	Dairy cattle/flour/poultry/semolina/wheat
Ghana	Wheat
Hong Kong	Eggs
India	Vegetable oil
Indonesia	Dairy cattle
Iraq	Dairy cattle/eggs/flour/poultry/wheat
Israel	Barley
Ivory Coast	Wheat
Jordan	Barley/rice/wheat
Kuwait	Dairy cattle
Morocco	Dairy cattle/wheat
Nigeria	Barley malt/wheat
Oman	Dairy cattle
Philippines	Barley malt/flour/wheat
Poland	Wheat
Qatar	Dairy cattle
Romania	Barley/wheat
Saudi Arabia	Barley
Senegal	Wheat
Sri Lanka	Wheat
Switzerland	Barley/sorghum
Syria	Wheat
Togo	Wheat
Tunisia	Barley/dairy cattle/wheat
Turkey	Dairy cattle/wheat
United Arab Emirates	Dairy cattle
Venezuela	Barley malt
Yemen	Flour/poultry feed/wheat
Yugoslavia	Wheat
Zaire	Flour/wheat
Zanzibar	Flour

Source: USDA.

Table 27--Exports of agricultural commodities, by destination shares, average 1970-72 and 1983-85

Destination	1970-72			1983-85		
	United States	EC-10	Other	United States	EC-10	Other
			Percent			
EC-10	20	--	80	30	--	70
United States	--	18	82	--	34	66
Other Western Europe	15	41	43	24	46	31
Canada	59	12	28	60	21	19
Eastern Europe	12	25	63	17	28	55
USSR	10	6	84	23	17	60
Africa	15	43	42	25	45	29
Middle East	22	23	55	17	34	49
Latin America	37	18	46	60	13	27
Asia	34	6	60	43	9	48
Oceania	13	28	59	16	35	49

-- = not applicable.
Source: UN.

The Food Security Act of 1985 authorizes price and income supports for grains, cotton, soybeans, peanuts, sugar, and milk. It also mandates a onetime program to reduce U.S. dairy herds through a voluntary buy-out program. A conservation reserve established under the act is targeted to remove up to 45 million acres of erodible land from production.

The CAP began in 1962 based on three central principles: creation of a single community market, an internal preference for community products, and common financing of policy costs.

The basic mechanism used in EC commodity regimes involves high internal prices maintained through variable levies that increase as world prices fall relative to internal EC prices, and export refunds that compensate exporters for the difference between internal market prices and world prices. This permits disposal of surpluses at world prices, while EC producer prices remain high. The CAP was set up for a community that sought to increase food production and decrease dependence on imports. Under the protection of high internal prices, the EC has become much more than self-sufficient in grains, dairy products, beef, and sugar.

Specific programs are contrasted in table 28, followed by more detailed summaries of measures for price support, production control, stock and surplus disposal, and border protection for individual commodities (tables 29-35).

Table 28--Summary of program supports for agriculture

Commodity	United States	EC
Dairy	Price supports maintained by tariffs, quotas, and government purchases.	Price supports maintained by intervention purchases. Variable import levies. Export refunds. Production quotas. Consumption subsidies.
Grains	Deficiency payments. PIK entitlements. CCC inventory operations and commodity loans.	Price supports maintained by intervention purchases. Variable levy. Export refunds.
Livestock	Beef: tariff, quota (countercyclical), and purchases (4/86-9/87). Other: general (research and development, inspection).	Beef price supports maintained by intervention purchases. Variable import levies and export refunds on all products.
Oilseeds	CCC inventory operations and commodity loans.	Deficiency payments.
Sugar	Price supports. Import quotas.	Price supports maintained by intervention purchases. Variable import levies. Export refunds. Production quotas.

Source: CEA.

Table 29--Beef program supports

Price support measures	Production control measures	Stock and surplus disposal measures	Border protection measures
United States:			
None.	None.	Purchases for school lunch and other programs. A purchase of 400 million pounds of red meat to offset the effect of the dairy herd buyout on beef, pork, and lamb prices; 200 million pounds are to be exported.	An import quota is triggered whenever beef, goat, and mutton imports exceed maximum levels. Voluntary export restraint agreements have been negotiated with major suppliers when import have reached trigger levels.
EC:			
Beef and veal purchases at intervention levels when market warrants; EC retains considerable discretion. Actual prices have been below guide prices.	None.	Export subsidies for cattle, calves, beef, and veal as needed to offset difference between EC and world prices.	Variable levies on imports of beef, veal, and live animals. Variable levies are the difference between guide and import prices plus customs duties. Actual levy is a percentage, from 0 to 114 of the basic levy, depending on the relation of EC internal prices to guide prices.

Table 30--Dairy program supports

Price support measures	Production control measures	Stock and surplus disposal measures	Border protection measures
United States:			
Butter, cheddar cheese, and nonfat dry milk purchases at fixed minimums to support milk prices at levels set by legislation. Regional marketing orders further support price of fluid milk above price of manufacturing milk.	Dairy termination program, 1986-87, pays producers to slaughter or export cows and discontinue dairy operations for 5 years.	In recent years, significant expansion of dairy products through Section 416 and PL 480 food donations. Dairy export incentive program targets dairy product exports to 37 selected countries. Private sales are augmented with CCC dairy stocks. Limited dairy product donations for feeding programs, including the temporary emergency feeding assistance program.	Market price of dairy products and, indirectly, milk are enforced by import quotas and tariffs. Rates are specified by commodity. Casein is imported duty free.
EC:			
Butter and skimmed milk powder are purchased at fixed intervention prices. New provisions for 1987-88 make intervention obligatory only when market prices fall below trigger levels.	Milk deliveries are subject to quotas enforced by a "superlevy" of 75 percent of the target price on excess production.	Export subsidies are provided for dairy products and processed products to offset the differences between EC and world prices. Subsidies are provided for the consumption of butter by institutions and food manufacturers of skim milk powder for animal feed and skimmed milk for casein production. There is a limited consumer subsidy for butter.	Threshold (minimum import) price for milk and dairy products, including products that contain dairy products, enforced by variable levies that are equal to the difference between the threshold and world prices.

Table 31--Grain program supports

Price support measures	Production control measures	Stock and surplus disposal measures	Border protection measures
United States:			
Price supports maintained through nonrecourse loans to producers at established loan rates using the crop as collateral. If the market price falls below the loan rate, then producers may keep the loan and forfeit the crop. Income supports maintained through deficiency (direct) payments to producers. The payment rate is the difference between a target price and the higher of either the the loan rate or the market price. Commodity certificates redeemable for government stocks have been used as part of the deficiency payments.	Production is limited through voluntary producer participation in acreage reduction programs (participation is required for loan and deficiency payment eligibility). Voluntary paid land diversion programs have periodically been offered to increase acreage set-asides. Participating producers may reduce permitted planted acres up to 50 percent and still receive 92 percent of their deficiency payments. Up to 45 million acres of cropland will (by 1990) be placed in a conservation reserve for 10 years.	Commodity certificates for public stocks have been issued as partial payment for deficiency payments, the conservation reserve, the export enhancement program, PL 480, and wheat donations under Section 416. Farmer-owned reserve (FOR) maintained for longer term (3-5 years) storage of wheat and feed grains.	None.
EC:			
The EC is obligated to purchase all grain offered that meets minimum standards at intervention prices that are fixed annually. A coresponsibility levy (production tax) reduces effective producer receipts by 3 percent on marketed grain. For durum wheat, direct payments are made to producers in low-yield areas. Wheat and rye meeting higher standards receive up to 7 percent higher prices than for the minimum qualities.	A production threshold is set and, if a 3-year average of actual production exceeds the threshold (adjusted for imports of nongrain feeds), price support increases are supposed to be adjusted downward. Annual price setting remains at the discretion of the EC Council of Agricultural Ministers, however.	National intervention agencies hold stocks purchased at the intervention level. Surpluses are disposed of with export subsidies that are set weekly as the difference between EC and world price changes.	Threshold (minimum import) prices enforced by variable levies that are adjusted daily to equal the difference between threshold and world prices. This is also applied to the grain content of processed products.

Table 32--Oilseeds program supports

Price support measures	Production control measures	Stock and surplus disposal measures	Border protection measures
United States:			
Price supports maintained through nonrecourse loans to soybean producers at established loan rates using the crop as collateral. If the market price falls below the loan rate, the producer may keep the loan and forfeit the crop.	Peanut production restricted through poundage quota for domestic sale. Extra peanuts must be exported or crushed for oil.	None.	Import quota for peanuts.
EC:			
Guide prices set above world prices. Crushers or first purchasers receive subsidies determined weekly to offset the difference between the guide and world price. For soybeans, a contract system ensures producers a minimum price. Intervention mechanisms exist.	Production thresholds are set for rapeseed and sunflowerseeds similar to those for grains.	Export subsidies are provided.	Oilseed and meal import levies are set at 0 percent in the GATT. Levies on soyoil are set at 10 percent.

Table 33--Pork, poultry, and eggs program supports

Price support measures	Production control measures	Stock and surplus disposal measures	Border protection measures
United States:			
None.	None.	A purchase of 400 million pounds of red meat to offset the effect of the dairy herd buyout on beef, pork, and lamb prices: 200 million pounds are to be exported.	None.
		Export enhancement and targeted export assistance program funds are available to exporters.	None.
EC:			
May purchase pork at an intervention price when the market price falls below 103 percent of guide (target) price. There has been no intervention since 1971. There is no purchase of poultry and eggs. Export subsidies provide effective internal price support for pork but not for poultry since exports differ from domestic consumption.	None.	Export subsidies are provided to offset the difference between EC and world prices.	Pork, poultry, and egg imports are subject to the basic levy, the difference in the cost of production within the EC (with EC grain prices) and production costs at world grain prices plus 7 percent. A supplementary levy is imposed if the entry price is below a sluicegate price, an estimate of the cost of production at world grain prices.

Table 34--Rice program supports

Price support measures	Production control measures	Stock and surplus disposal measures	Border protection measures
United States:			
Price support maintained through nonrecourse loans to producers at established loan rates using the crop as collateral. Marketing loan permits repayment of loan at market price with difference kept by the producer. Income support maintained through deficiency (direct) payments to producers. The payment rate is the difference between a target price and the higher of either the loan rate or the market price. Commodity certificates redeemable for government stocks have been used as part of the deficiency payments.	Production limited through voluntary producer participation in acreage reduction program (participation is required for loan and deficiency payment eligibility). Voluntary paid land diversion is periodically offered to increase acreage set-aside. Participating producers may reduce permitted planted acreage to 50 percent and still receive 92 percent of the deficiency payment. Up to 45 million acres of cropland will (by 1990) be placed in a conservation reserve for up to 10 years. Little effect anticipated for rice acreage.	Commodity certificates for public stocks have been issued to producers as partial payment for direct price and income support.	None.
EC:			
Intervention is required but is rarely used.	None.	Export subsidies are provided as for other grains.	Threshold (minimum import) price enforced by variable levies, set daily to equal the difference between threshold and world prices. Also applied to the rice content of processed food products.

Table 35--Sugar program supports

Price support measures	Production control measures	Stock and surplus disposal measures	Border protection measures
United States:			
Price supports maintained through nonrecourse loans to processors at established loan rates. The program must be operated at no net cost to the taxpayer.	None.	None.	An import quota is maintained to prevent domestic prices from falling below the level at which loan collateral would be forfeited.
EC:			
Intervention agencies purchase sugar at a fixed price within an A and B quota (see item under production control measures). Refiners are required to pay producers fixed minimum sugarbeet prices within quotas. There is a 2-percent production tax on the A quota and 32 to 39.5 percent on the B quota as required to fully finance exports.	An A quota approximates EC consumption requirements. The B quota (24 percent of the A quota in 1985/86) is set to reflect sales prospects outside the EC.	Export subsidies as required to compensate for the difference between the EC and world prices on production under the A and B quotas. All sugar produced above the A and B quotas must be exported without subsidy. Sugar imported at EC prices from former colonies under the Lome agreement are reexported with export subsidies.	Variable levies equal to the difference between the EC and world prices are applied to imports of raw and refined sugar and molasses. Appropriate levies are also applied to products containing sugar.

Prices

The basic price and income support mechanism for grains and cotton in the United States involves a nonrecourse loan, functioning in conjunction with a target price established legislatively (fig. 29). When market prices fall below loan rates, producers who participate in a commodity program may forfeit the commodity upon which they have received a loan instead of repaying. Deficiency payments, equivalent to the difference between the target price and the market price or loan rate, whichever is higher, are payable on covered production. Compliance with program provisions such as acreage reduction is generally required in order to have access to nonrecourse loans and deficiency payments.

As a result of a rapidly expanding export market for U.S. agriculture in the seventies, high interest rates, and a relatively high inflation rate, Congress passed the Agriculture and Food Act of 1981 setting rigid annual levels for commodity target prices and loan rates. In at least partial response to the rigidity of the 1981 Act, Congress incorporated greater program flexibility, through marketing loans and commodity certificates, into the Food Security Act of 1985.

In the EC, grain producers and/or first handlers of grain (elevator operators) may deliver grain to a national intervention agency and receive the intervention price. Thus, the intervention price is similar to the U.S. loan rate in operating as a price floor (fig. 30). However, unlike U.S. commodity programs, EC variable levies on imports and refunds (subsidies) on exports operate at the border between the nations of the EC and the rest of the world. Thus, prices are supported by raising the price of imported products and by reducing the price of products for export, rather than by directly paying producers the difference between internal prices and the price level desired by EC policymakers.

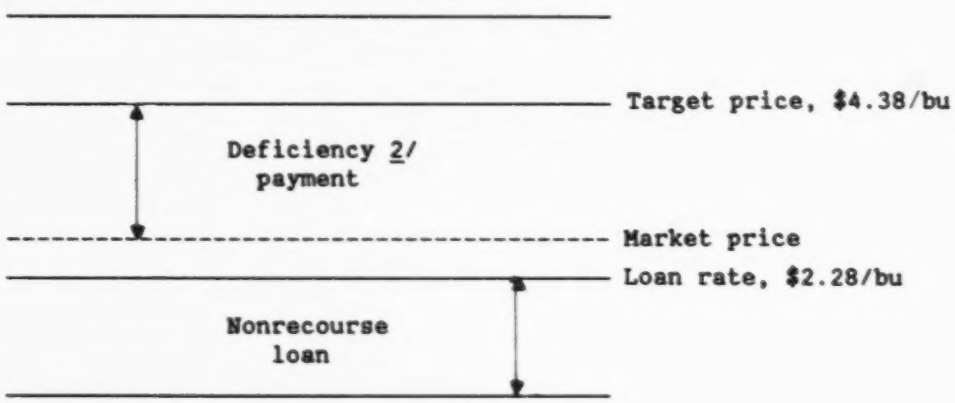
On the importing side, the EC sets a "target price" for grains relative to the part of the EC with the largest grain deficit, the Duisburg region of Germany. The threshold price is derived by subtracting transport costs from the port at Rotterdam to Duisburg and associated trading margins and marketing costs from the target price. The amount of variable levy, or import tax, is then set with reference to the difference between the threshold price and the lowest price on a delivered (c.i.f.) basis in Rotterdam (fig. 30).

Export refunds are set on the basis of weekly tenders to the EC Commission's Cereals Management Committee. Refunds are paid to traders whose bids are accepted based on the difference between internal EC prices, prices in importing countries, and transport and marketing costs. EC export refunds on wheat in March 1987 were almost $4.60 per bushel ($168 per metric ton). This permitted export sales at about $1.88 per bushel ($70 per ton).

In contrast, U.S. Government outlays were about $2.75-$3.00 per bushel ($100-$110 per ton) on a fourth of U.S. wheat exports in 1986/87 covered by the EEP. This includes $1.00-$1.25 per bushel ($35-$45 per ton) in EEP subsidies and about $1.75 per bushel ($65 per ton) that producers realized in deficiency payments after allowing for acreage reductions.

Faced with large surpluses and growing price support costs, the EC has begun to lower support prices, at least in ECU terms. Price decisions for 1986/87 represented a 0.3-percent weighted average price reduction in the EC-10 in ECU terms. Price proposals for 1987/88 would further reduce prices 0.5 percent.

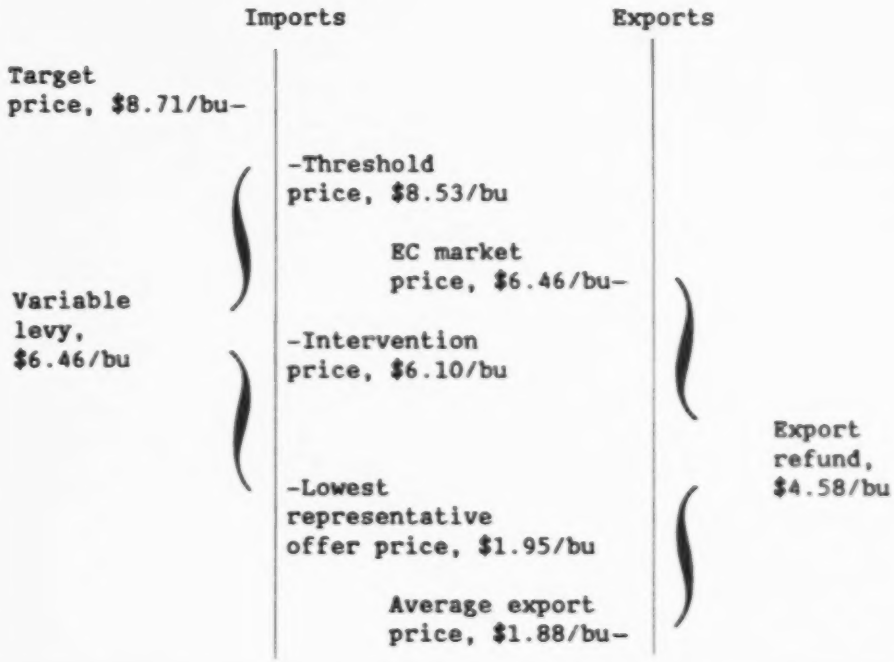
Figure 29--U.S. wheat program support mechanism, crop year 1987 1/



1/ Producer required to reduce crop acreage by 27.5 percent to receive loan and deficiency payments.

2/ Payment rate is the difference between the target price and the higher of the market price or the loan rate.

Figure 30--EC wheat program support mechanism, March 1987



Because of the nature of the European Monetary System, the 1986/87 support price reduction translated into a 2.2-percent average price increase in national currencies. Prices in Greek currency rose the most, 13.5 percent, while West German prices fell 0.2 percent. Price changes in other countries averaged 0-4.2 percent. Proposed price changes for 1987/88 would increase prices in national currencies only 0.2 percent in the EC-10.

Comparisons of market prices for specific commodities are complicated by variability of prices within the EC as well as exchange rate changes. For example, at current exchange rates, the wholesale market price for common wheat in France was about $5.60 per bushel in early 1987, while in the most wheat deficit country, Germany, the price was about $7.50 per bushel. The French price increased 59 percent from an average of U.S. $3.55 per bushel in early 1985. Most of the difference is due to exchange rates, as the price in French francs increased by 9.5 percent during the same period.

Public Stock Levels of Commodities

Support programs have led to huge U.S. and EC stocks of grains and dairy products. Stock accumulation and maintenance costs contribute to rapidly climbing farm program costs. Surplus stocks also overhang world markets, depressing prices.

At the end of 1985, combined U.S. and EC government-held grain stocks stood at 48 million metric tons, about 60 percent of the two regions' net exports for the year (figs. 31 and 32, table 36). The United States held about two-thirds of the total stocks. In 1986, world stocks reached record levels. EC stocks of butter, nonfat dry milk, and barley rose, while beef, common wheat, and durum wheat stocks were down slightly. The EC had corn in public stocks for the first time in 1986.

Figure 31-Volume of U.S. government stocks

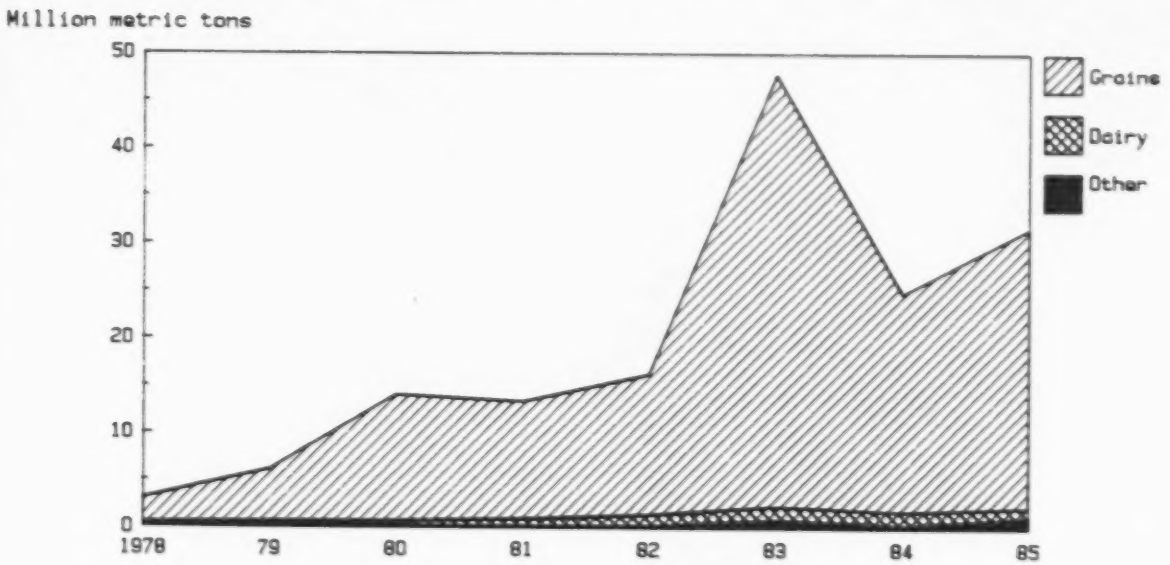


Figure 32-Volume of EC government stocks

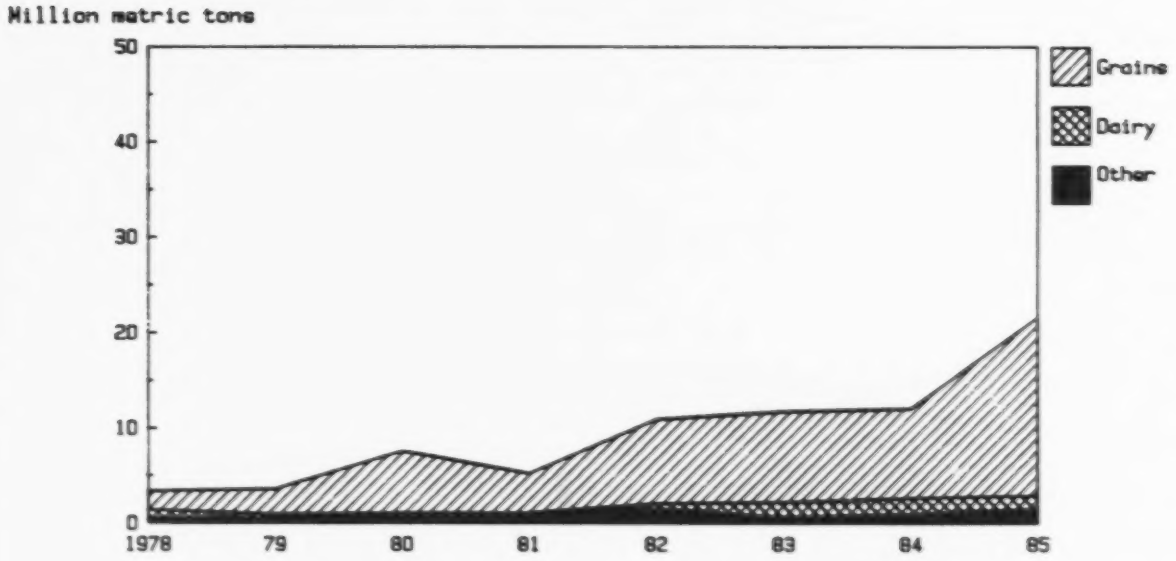


Table 36--Volume of government stocks

Year 1/	United States			EC		
	Total	Grain	Dairy	Total	Grain	Dairy
	Million metric tons					
1978	3.0	2.6	0.4	3.3	2.0	1.0
1979	6.1	5.5	.3	3.6	2.7	.5
1980	14.0	13.3	.6	7.6	6.5	.3
1981	13.3	12.3	.9	5.2	4.2	.3
1982	16.2	14.8	1.3	10.9	8.9	.6
1983	47.8	45.5	1.6	11.7	9.5	1.6
1984	24.7	23.0	1.5	12.0	9.4	1.7
1985	31.6	29.3	1.2	21.6	18.6	1.5

1/ End of budget year.
Sources: USDA and EC.

Both the United States and EC have been finding ways to dispose of stocks, in order to reduce storage costs. The United States has used the EEP, payment-in-kind (PIK) certificates, and reduced-price sales on international markets. EC export refunds were discussed earlier.

While stock volumes are larger in the United States, the value of EC agricultural stocks is higher when computed at acquisition costs (figs. 33 and 34, table 37). Comparison of the value of commodities in storage is complicated by differences in prices at which the commodities were acquired in the United States and EC, as well as sharp decreases in the value of commodities in storage as a result of declining world prices. While EC stocks on hand at the end of 1986 were acquired at a cost of 11.2 billion ECUs, their value at market prices is estimated at only one third of that amount.

Figure 33-Value of U.S. government stocks

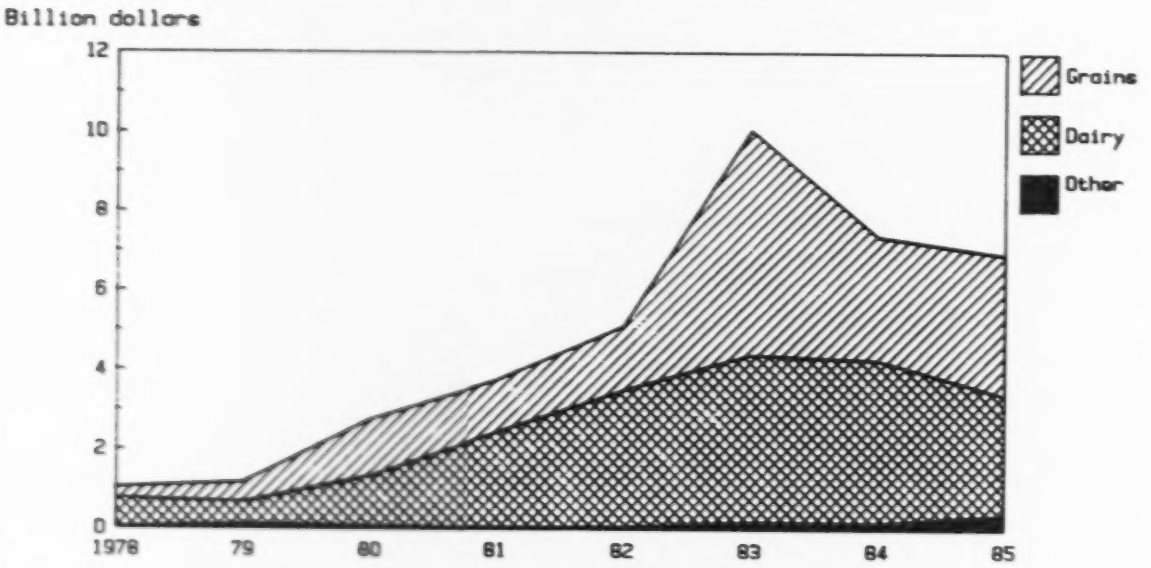


Figure 34-Value of EC government stocks

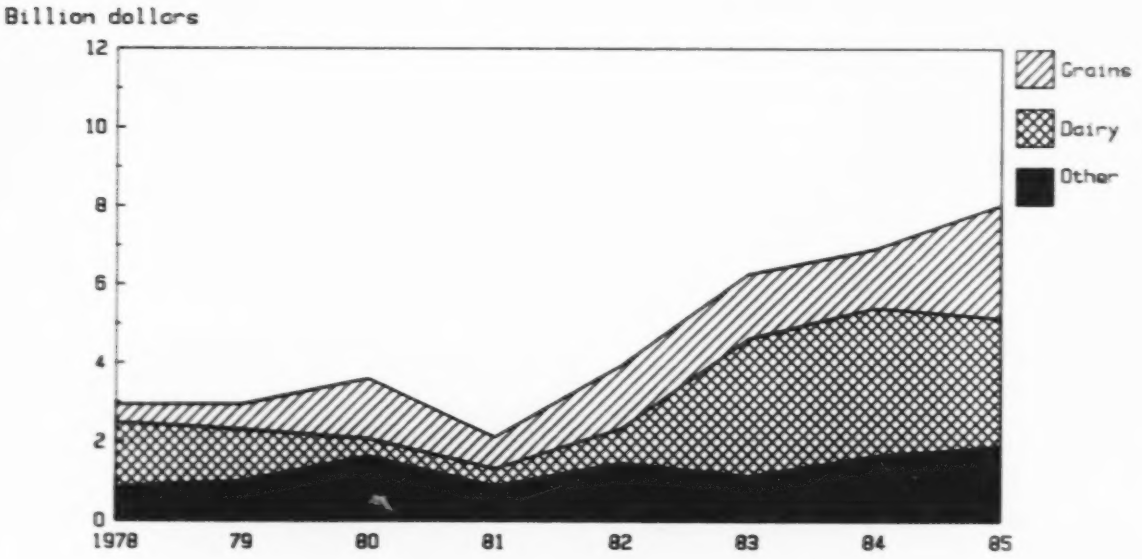


Table 37--Value of government stocks 1/

Year 2/	United States			EC		
	Total	Grain	Dairy	Total	Grain	Dairy
	Billion dollars					
1978	1.0	0.3	0.8	2.9	0.5	1.6
1979	1.2	.5	.6	2.9	.6	1.3
1980	2.7	1.4	1.3	3.6	1.5	.4
1981	3.7	1.3	2.4	2.1	.8	.4
1982	5.1	1.6	3.4	3.9	1.6	.9
1983	10.2	5.7	4.2	6.3	1.7	3.5
1984	7.4	3.1	4.1	6.9	1.5	3.8
1985	6.9	3.6	3.0	8.0	2.9	3.3

1/ Stocks are valued at their acquisition cost.
2/ End of budget year.
Sources: USDA and EC.

Government Outlays for Agricultural Support

The United States led the EC in expenditures on agricultural price and income supports in 1986. The EC is likely to regain the lead in 1987.

U.S. outlays for price and income support reached a record $25.8 billion in 1986, up from $4 billion in 1981 and under $11.6 billion in 1982 (fig. 35 and table 38). Total EC price support expenditures were about $22 billion in 1986 up from almost $13 billion in 1981 and 1982.

U.S. outlays are forecast to fall to $25.3 billion in 1987. The EC budget for 1987 calls for expenditures of about $26 billion, although actual costs are currently projected to exceed that amount.

About two-thirds of U.S. expenditures are on grains, with an additional 9 percent on dairy (fig. 36 and table 39). In contrast, expenditures on grains were originally budgeted to account for about 15 percent of CAP expenditures in 1986, with two-thirds of that cost going for export refunds. The cost of export refunds on grain more than doubled between 1985 and 1986, with further increases expected for 1987. Olive oil and oilseed support now make up 12 percent of costs. Beef and dairy received almost 40 percent of 1986 CAP expenditures.

Export refunds cost the EC $5.1 billion in 1985 and rose to $8.5 billion in 1986 (fig. 37 and table 40). A 30-percent fall in the value of the dollar and lower world prices resulting from implementation of lower U.S. loan rates and the U.S. EEP contributed substantially to these costs.

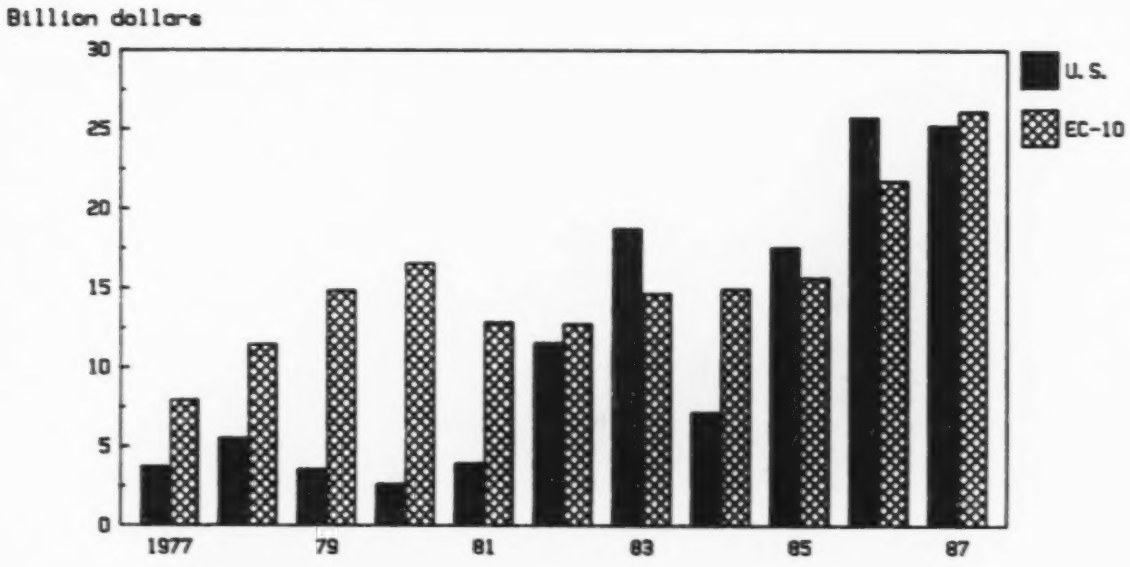
Agricultural Producer Subsidies

One U.S. objective in current GATT negotiations is to promote liberalization of international trade. According to ERS analysis, there are no "free traders" among the world's agricultural trading countries. Analysis of protection of U.S. and EC agricultural producers during 1979-84 shows that overall protection of producers was higher in the EC, but that protection was also important in the United States.

Estimates of producer subsidy equivalents (PSEs) indicate the level of subsidy that would be necessary in order to compensate producers (in terms of percentage of income) for loss of government programs affecting a given commodity (figs. 38 and 39, table 41).

During 1982-84, protection of sugar, wheat, corn and dairy producers was higher in the United States, while protection of beef and soybean producers was stronger in the EC. Despite individual commodity averages, the average overall level of protection was higher in the EC when weighted by the value of production.

Figure 35-Outlays for price and income support



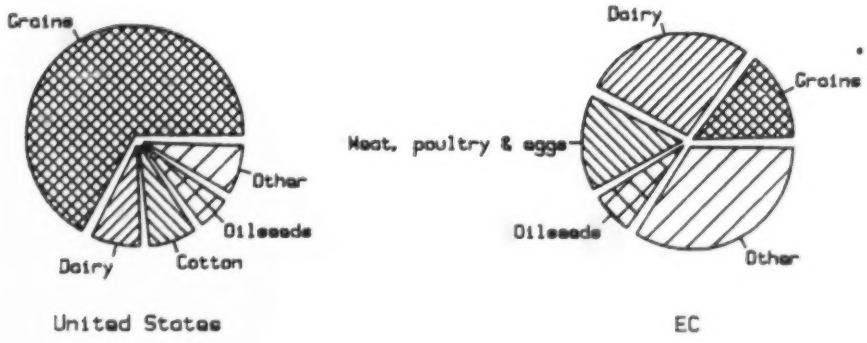
Note: Data for 1986 and 1987 are estimates.

Table 38--Outlays for price and income support

Year	United States	EC-10
	Billion dollars	
1977	3.8	8.0
1978	5.6	11.5
1979	3.6	14.9
1980	2.7	16.6
1981	4.0	12.9
1982	11.6	12.8
1983	18.8	14.7
1984	7.2	15.0
1985	17.6	15.7
1986 1/	25.8	21.8
1987 1/	25.3	26.2

1/ Estimate.
Sources: USDA and EC.

Figure 36-Composition of outlays, by commodity, 1986



United States EC

Table 39--Composition of outlays, by commodity, 1986

Commodity	Outlays	
	Billion dollars	Percent
United States:		
Grains	17.3	67
Dairy	2.3	9
Cotton	2.2	9
Oilseeds 1/	1.6	6
Other	2.3	9
Total	25.7	100
EC:		
Grains	3.2	15
Dairy	6.0	27
Meat, poultry, and eggs	3.5	16
Oilseeds 2/	1.7	8
Other	7.4	34
Total	21.8	100

1/ Includes soybeans and peanuts.
2/ Includes rapeseed, sunflowerseed, soybeans, and flaxseed.
Sources: USDA and EC.

Figure 37-Composition of outlays, by support mechanism, 1986

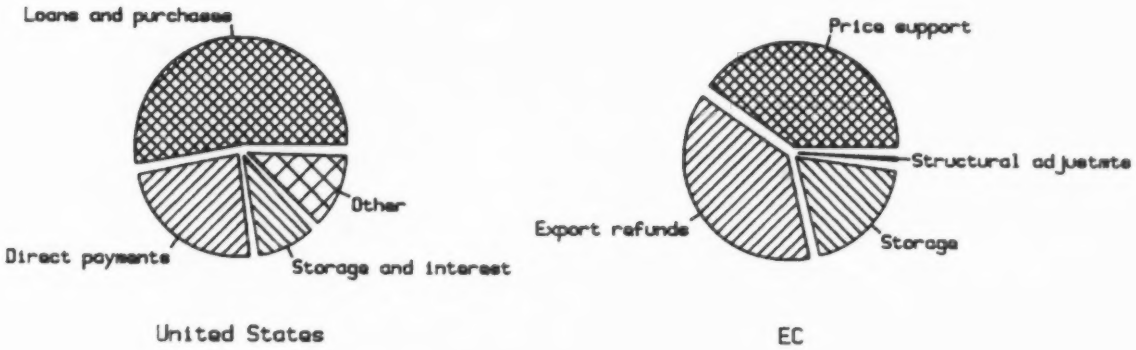


Table 40--Composition of outlays, by support mechanism, 1986

Item	Outlays	
	Billion dollars	Percent
United States:		
Loans and purchases	13.6	53
Direct payments	6.2	24
Storage and interest	2.6	10
Other 1/	3.3	13
Total	25.7	100
EC:		
Price support	8.9	41
Export refunds	8.5	39
Storage	4.3	20
Structural adjustments	.1	0
Total	21.8	100

1/ Includes outlays for the conservation reserve, dairy termination program, export guarantees, and other outlays.

Sources: USDA and EC.

Figure 38-Producer subsidy equivalents, 1979-81 average

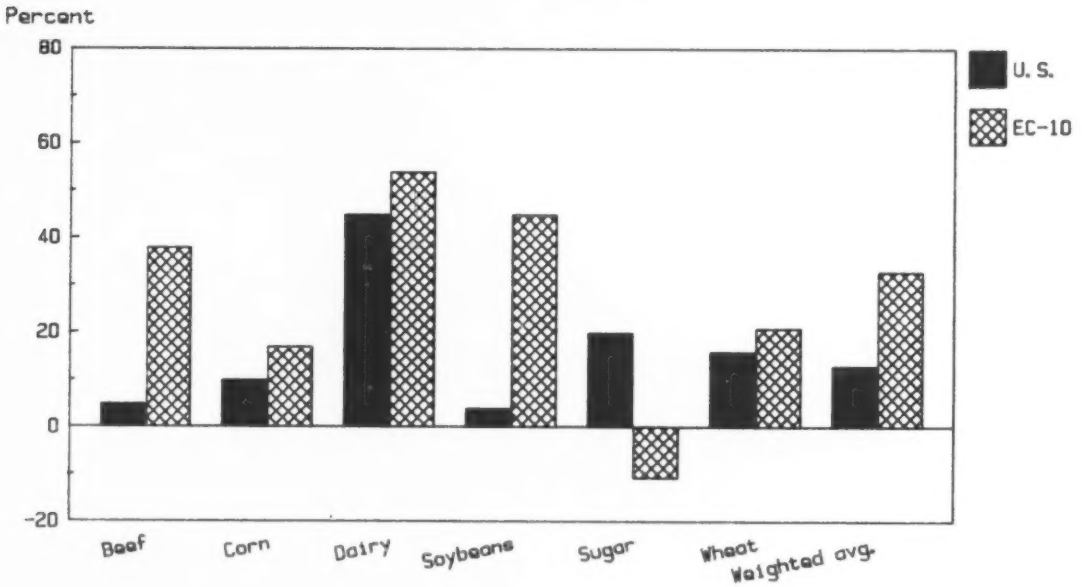


Figure 39-Producer subsidy equivalents, 1982-84 average

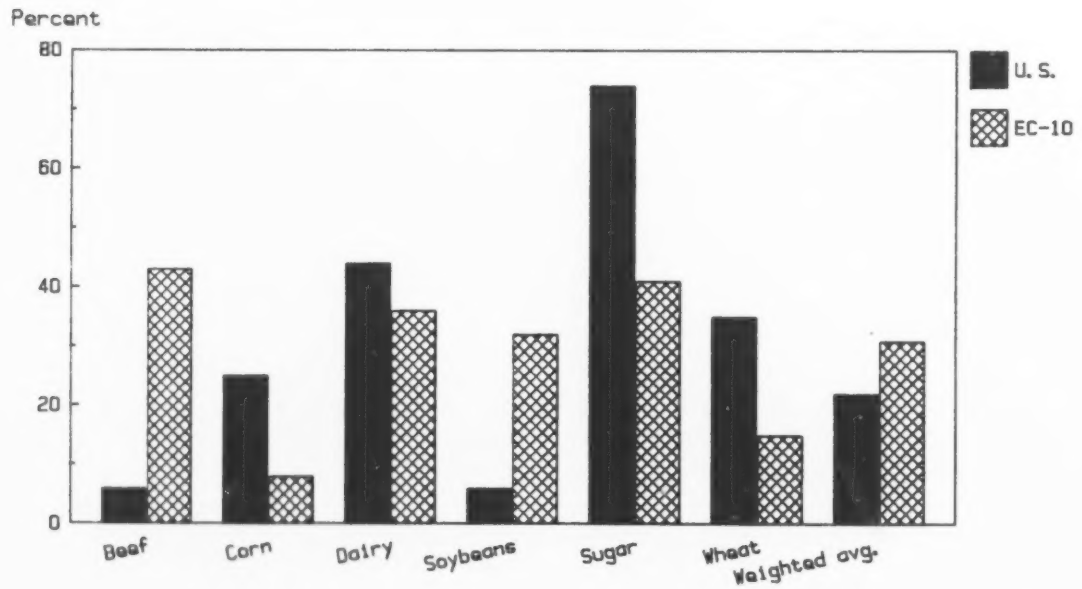


Table 41--Producer subsidy equivalents, 1979-81 and 1982-84 averages

Commodity	United States		EC	
	1979-81	1982-84	1979-81	1982-84
	Percent			
Beef	1/ 5	6	38	43
Corn	10	25	17	8
Dairy	45	44	54	36
Soybeans 2/	4	6	45	32
Sugar	20	74	3/ -11	41
Wheat 4/	16	35	21	15
Weighted average 5/	13	22	33	31

1/ Ratio of policy transfers to gross domestic value of production including direct payments.
2/ Soybeans and rapeseed in the EC.
3/ A negative value indicates an effective tax on production.
4/ Includes all wheat.
5/ PSEs for all commodities weighted by their value of production.
Source: USDA.

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